User Guide

Testnet 6

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Introduction

About This Guide

Purpose and Content

The purpose of this user guide is to provide an overview of Testnet, and to provide support in day-to-day usage of Testnet_Web. This User Guide is intended for people new to Testnet as well as the seasoned user.

The *Introduction*, which you are reading now, contains a general description of Testnet.

The *Testnet* section describes common Testnet procedures, such as starting up, as well as the different user categories of Testnet.

The *Curvedata* section describes an Excel application that enables viewing of curve data from different tests.

The *Infodata* section describes an Excel application that helps you to search and view test information from the database.

The *Machtime* section describes an Excel application that enables you to analyze the usage rate of the test station for up to a month.

The *Measdata* section describes an Excel application that enables viewing of measured values from different tests.

The *TQ Report* section describes an Excel application that enables viewing of test and repair data from both Testnet and Quality database.

The *Weekdata* and *Weekdata_Summary* sections describe Excel applications that show the test results for a specific week or a specified period of weeks.

The *View Protocol* section describes how to view the test protocols.

The *Print Protocol* section describes how to print test protocols as PDF files.

The *Fault diagram – Components* section describes an Excel application for viewing fault diagram for chosen components.

The *Fault diagram – Fault Codes* section describes an Excel application for viewing fault diagram for chosen fault codes.

The *Fault diagram – Positions* section describes an Excel application for viewing fault diagram for chosen positions.

The *Fault diagram – Products* section describes an Excel application for viewing fault diagram for chosen products.

The *Fault Outcome Graph* section describes an Excel application for viewing fault outcome on production data.

The *Fault Outcome Report (Products)* section describes an Excel application for viewing fault outcome on production data.

The *Fault Outcome Report (Report Locations)* section describes an Excel application for viewing fault outcome on production data.

The *Fault Report Positions vs. Fault Codes* section describes an Excel application for viewing fault report on positions versus fault codes on production data.

The *Hierarchical fault outcome report* section describes an Excel application for viewing a fault outcome report on product structure.

The *Hierarchical yield report* section describes an Excel application for viewing a yield report on product structure.

The *Pareto – Areas* section describes an Excel application for viewing a pareto report on areas.

The *Pareto – Fault Codes* section describes an Excel application for viewing a pareto report on fault codes.

The *Pareto – Lines* section describes an Excel application for viewing a pareto report on lines.

The *Pareto – Positions* section describes an Excel application for viewing a pareto report on positions.

The *Yield Graph* describes an Excel application for viewing yield on production data.

The *Yield Report (Products)* section describes an Excel application for viewing yield on production data.

The *Yield Report (Report Locations)* section describes an Excel application for viewing yield on production data.

The *Blob* section describes how to retrieve and view blob files stored together with test protocols.

The *Quality Analysis* section describes a tool for analysing quality data.

The *Products* section describes how to handle product structures needed when making input.

The *Modelling* section describes how to model plant for analysing quality data.

The *Basedata* section describes how to administrate Basedata for Quality database.

The *Protocol Handling* section describes how to correct protocols rejected by the Store, QSPInsert or BTSend applications.

The *Week Goal* section describes how to set up week goals for weekly reports.

The *Users* section describes how to add new users and assign levels of access through User Groups.

The *User Group*s section describes how to handle user group administration.

The *License* section describes how to handle application license.

The *System Settings* section describes all settings for application and how to change them.

Glossary explains the terms used in the guide.

Index offers an easy-to-use search function.

Conventions

To make the guide as easy to read as possible, we have tried to be consistent in our use of terminology.

The following conventions are used:

These pictures correspond to the buttons

	on the screen.
[Button]	If there is no picture of a button, this is how a button is illustrated.
<ENTER>	Keys on the keyboard.
Italics	Used to emphasise special terms or phrases.
Window	Name of a tab or a window.
"Menu"	Name of a window menu.
Menu=>Tab	Indicates which menu command you should select from the Testnet main menu to open a given tab or window.
Result sheet	This can be an Excel result sheet from Weekdata, Infodata or Measdata.

An instruction to activate a button on the screen using the mouse is written like this:

Click on

.

or

Click on **[Button]**.

An instruction to use a key on your computer's keyboard is written like this:

Press **<Key>**.

An instruction that comprises a series of steps is written like this:

1. This is step 1
2. This is step 2
3. Etc.

How do I Use the Guide?

When learning to use Testnet it is a good idea to look at the system whilst reading the guide and. Don't try to read the entire guide from beginning to end. Simply choose the section that interests you and use the guide as reference in times of need.

What Is Not In the Guide

A detailed description of Testnet System is not included in this guide. For a more detailed description of Testnet please refer to the System Administrators Manual.

User Interface

Testnet uses the Windows platform. The user interface consists of folders that correspond to work assignments. In the folders there are tabs for the various functions supported by Testnet.

The design of the user interface follows the same standards as Windows as far as possible. However, the following is worth noting:

If a button is grey, it means that no item has been selected for the operation in question.

- Operators with a low level of access and experience may only perform certain commands. Contact your Testnet administrator if you need access to additional commands.
- A check box can be filled or emptied by clicking on it, or by moving into it and pressing the space bar.

- You can move the cursor between fields using the **TAB** key. You can move the cursor within a filed using the **<Left>** and **<Right>** arrow keys.

R-State

An R-state is the revision number of a product. Testnet can handle products with or without an R-state (described in "ST1D, Numbering and Revision Rules").

Product Numbers

Testnet can handle both external product numbers as well as Ericsson product numbers. The external product numbers are described in EN/LZB 101 01/1D, "External Product Numbers".

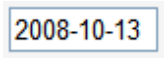
General Description of Pages

Testnet's functions are divided into different groups. You can reach these groups from a menu that appears when you have logged on to Testnet. When you have chosen a group, by clicking on its menu item, a new page is opened which includes all the functionality in the chosen group.

Most of the pages in Testnet are constructed in a similar way. Buttons and regularly occurring functions are described below, as a general description. Pages that include functions other than those described below will be described together with their respective work description.

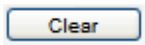
Page Objects

Testnet tabs consist of different objects:



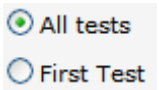
Text field This text field is used for entering text. Some of these fields can be used together with a barcode reader (for example to enter serial numbers). The Combo-box (below) is a special type of text field.

Combo-box The Combo-box is the same as the text field, but also holds a list of alternatives. Clicking on the little arrow to the right opens a scroll down list.



Button There are a number of buttons present in most of the tabs. The functions for these buttons are described later on in this chapter. Buttons that are contained only within a certain tab are described in the chapter describing the tab, or in the step-by-step instructions.

Check box The check box is used to enable or disable the alternative next to the check box. By marking the check box, the alternative next to it will be enabled. Clicking in the check box will make it switch between an enabled and disabled state.



Radio button The radio button is used to enable one out of a set of several mutually exclusive alternatives. Clicking one of the coupled radio buttons in a group will enable it.

Week	Goal
807	40
805	10

List/matrix The list or matrix is used to display data. It is possible to mark any row in the list to perform actions on the selected item. The list is filled with data from the database when the corresponding **[Retrieve]** button is clicked.

Buttons

Some buttons appear in several places in Testnet. They always have the same function. Other buttons are described in the descriptions for each tab or function

This button opens saved data, such as selection parameters for example.

This button will save data, such as parameters or pictures.

Commands and Keys

These are the conventions used in this user guide.

Click…

"Click" will be used in sentences like these; "click on **[Button]**" or "click on the **Check box** check box". There are several ways to accomplish the desired action, depending on your equipment:

- You can place the mouse pointer directly on the screen and click once on the left mouse button (or equivalent).
- You can press the **<TAB>** key repeated times until the desired button is selected. Then press **<ENTER>** to activate the button. The TAB-sequence normally follows the natural workflow.

Type…

Type the data in a field or box.

Search Criteria

Search criteria are used to find specific information in the Testnet database, and transfer the result to the active list. Enter a search criteria and click on the button that fetches the data. Any information matching the search criteria will be displayed in the list.

TAB

Pressing the **<TAB>** key moves the cursor to the next box on the screen.

Select...

The combo-box indicates that there are a limited number of options. Open the scrolling menu inside the box and select a row in the list.

Uppercase and Lowercase Letters

As an administrator you should consider how information is entered (typed) into Testnet. You need to differentiate between uppercase and lowercase letters, since the system interprets them as different characters.

The best way of avoiding this problem is to be consistent, such as by always entering uppercase letters.

About Testnet

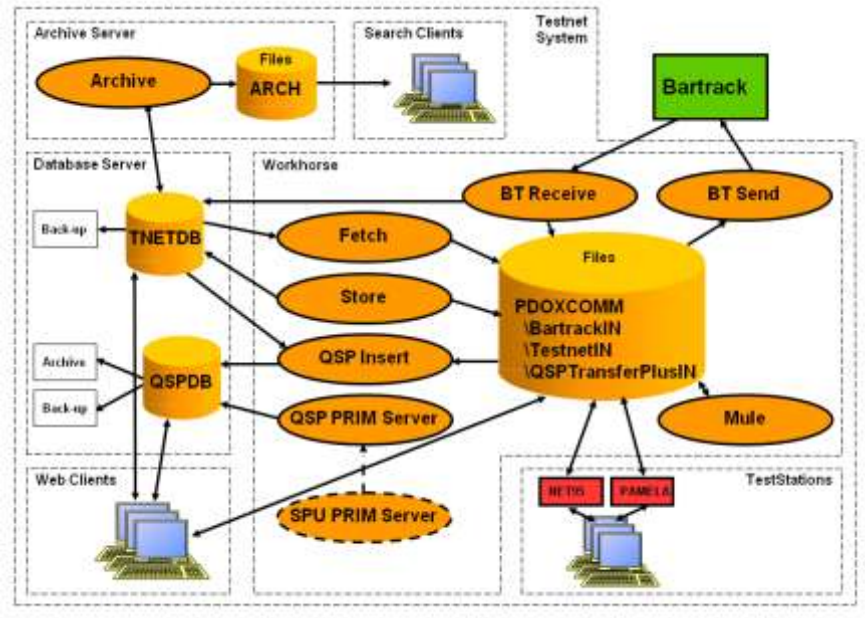
Testnet is a test data acquisition system. This system enables the supervision of tests and allows you to track any faults that may occur with the product. Testnet connects test, analysis and repair stations to a common database.

Testnet interfaces with Bartrack. There are two different Bartrack interfaces. One interface enables test stations to receive the product number, R-state and manufacturing date for each individual that is to be tested from Bartrack. Test production comments can be received from Bartrack. The other interface sends the test status back to Bartrack. The test type can also be sent to Bartrack.

Test information can automatically be sent to quality database.

About Testnet System

The Testnet applications are integrated in the Testnet system. The following picture describes the Testnet system and its components:



The test result files are transmitted from the test station to the **PDOXCOMM** directory where they are placed in a queue.

Pamela is the Windows interface between the test station and Testnet.

The **Store** application saves protocols, whereas the **Fetch** application retrieves protocols from the Testnet database.

Store and **Fetch** are run on a dedicated server in the network. Store detects files that are received by **TestnetIN** and interprets them. If the file is approved then the protocol is stored in the database **TNETDB**. If the protocol is rejected it is renamed as a "***.rrr**" file and can be corrected by using the **Testnet_Web** application. **PDOXCOMM** receives query files from the test stations. These files are then intercepted by **Fetch** and, once approved, returned to **PDOXCOMM** as protocol files. If the file is not approved then an empty file is created on **PDOXCOMM**.

PDOXCOMM provides a barrier between the database and the test stations, thereby ensuring that the test stations cannot in any way change the database.

Testnet Web Menu

The Testnet Web menu opens a number of web pages that are grouped into three different groups:

Analysis

- Test Reports

    - Curvedata
    - Infodata
    - Machtime
    - Measdata
    - TQ Report
    - Weekdata
    - Weekdata_Summary
- View Protocol
- Print Protocol
- Quality Reports
    - Fault diagram – Components
    - Fault diagram – Fault Codes
    - Fault diagram – Positions
    - Fault diagram – Products
    - Fault Outcome Graph
    - Fault Outcome report (Products)
    - Fault Outcome report (Report locations)
    - Fault report positions vs fault codes
    - Hierarchical fault outcome report
    - Hierarchical yield report
    - Pareto – Areas
    - Pareto – Fault Codes
    - Pareto – Lines
    - Pareto – Positions
    - Yield Graph
    - Yield report (Products)
    - Yield report (Report locations)
- Blob
- Quality Analysis

Administration

- Products
- Modelling
- Basedata
- Teststation Admin
- Protocol Handling
- Week Goal

System Administration

- License
- Users

- User Groups
- System Settings

Testnet

Main Menu Description

The different parts that make up Testnet are divided into three groups:

- Analysis
- Administration
- System Administration

Below is an example of the main menu:

The exact contents of the main menu depend on set-up and access rights.

Different Categories of Users

In Testnet, users are divided into three different categories or user groups. But there is a possibility to create new user groups to suit your own needs.

Analyst

The Analyst has access to **Analysis** Test reports that help to analyse different aspects of the test results. The Analyst also has access to the View Protocol and Blob tools.

QAnalyst

The QAnalyst has access to **Analysis** Quality reports that help to analyse different aspects of the quality. The QAnalyst also have access to the Quality Analysis tool.

QOperator

The QOperator has access to **Analysis** Quality reports that help to analyse different aspects of the quality. The QOperator also have access to the Quality Analysis tool.

Administrator

Administrators oversee the handling of test protocols and can edit week goals. Administrators have access rights to all Analyst functions additionally.

QAdministrator

QAdministrators have access to Products and Modelling. QAdministrators also have access rights to all QAnalyst functions additionally.

System Administrator

The System Administrator updates user profiles. They have access to every function in Testnet.

Starting-up Testnet

To start Testnet, enter the web address in your browser.

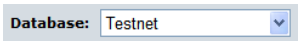
The following logon page will appear on the screen.

To be able to log on, you need a **User ID** and a **Password**, both of which you should have received from your administrator.

After you login for the first time you might be prompted to change your password. Rules for the new password are set up in the SYS_SETTINGS table in database.

How to Select Your Database

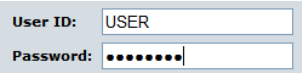
1. Go to the **Database** field.

2. From the drop-down list select the database you want to work with.

How to Login

1. Enter your user ID in the **User ID** field.
2. Enter your password in the **Password** field



3. Click on to log in.

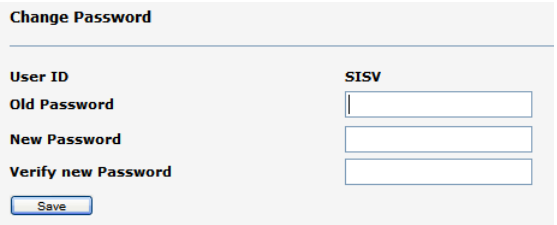
How to Change Your Password

There are two different scenarios when changing the password:

- You have to change password for example when logging in first time or your password expired.
- You want to change your password.

When you have to change your password a message will be displayed and a button which will let you access the change password page. If you want to change password check the **Change password** check-box.

1. Type your old password in the **Old Password** field.



2. Type your new password in the **New Password** field.
3. Enter the same new password again in the **Verify new Password** field.
4. Click on to log in and change the password.

When you log in, your user rights will be validated against information stored in the database. The Testnet main menu that appears after your login is based on your user authorisation. For example, if you are registered as an analyst, then the Analysis menu will appear.

You can also:

- To exit the browser you can select File/Exit from the menu bar.
- If you want to login as another user, click on or click the **Logout** link. You will then return to the **Login** page.

Curvedata

Description

Curvedata is an application that finds information about specific curves from tests that have been carried out on a product.

As the information is presented in an Excel sheet, it is possible to produce the report in several ways, for example, table or graph format.

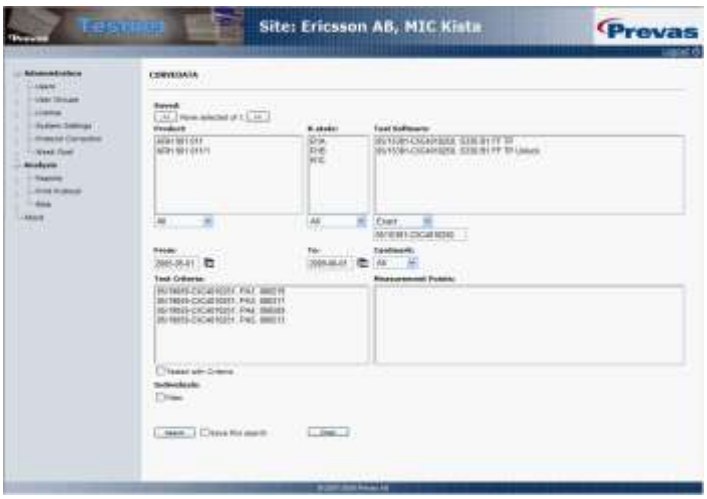
As Curvedata is an Excel application all normal Excel features are available. In addition, some special Curvedata functions exist:

Show/Hide columns	Gives you the possibility to show or hide columns.
Sort	Enables you to sort data.
Filter	Gives you the possibility to filter information.

Create a Curvedata Report

This is how you create a Curvedata report:

1. Click on CURVEDATA in the Analysis - Reports window, and then on Select.
   The following page will appear.

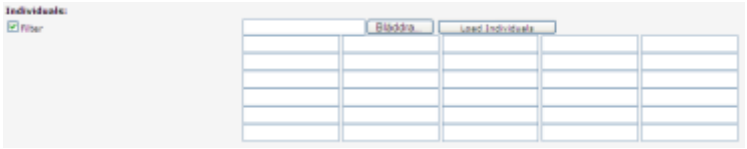


2. There are three ways you can search for a **Product**. If you click in the list of available products the selected product will appear in the

product number field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the product number, for example ROA. You can also let the product combo display option **"All"** and instead limit the search in other ways.

3. The **R-state** search works just as **Product**.
4. Select the **Test Software** if you want to limit your search on the software just as for **Product** and **R-state**.
5. Enter the period of time you want the report to cover. The year should be entered first, followed by month and then day (YYYY-MM-DD). For example, the 23rd of March, 2008 will be entered like this: 2008-03-23. You can also click the calendar button and get help with selecting your date.
6. Select whether the search criteria should include all cardmarks (**All**), exclude cardmarks (**Without**) or include a specific cardmark (**Specific**).

   Note: If you choose **Specific** you have to enter a list of maximum 40 cardmarks. For example, ABX1 will include cardmarks A, B, X and 1 in the search.
7. Then it is time to select a **Test Criteria**. Click on the wanted criteria in the list. If you want to have only individuals tested with those specific test criteria in your result check the checkbox below the list.
8. You can only view one curve at a time so select one item in the **Measurement Point**. If the list is empty this test has no curves.
9. You can use a serial number filter by clicking in the check box **Filter**. Then a serial number filter table is displayed in the current page:

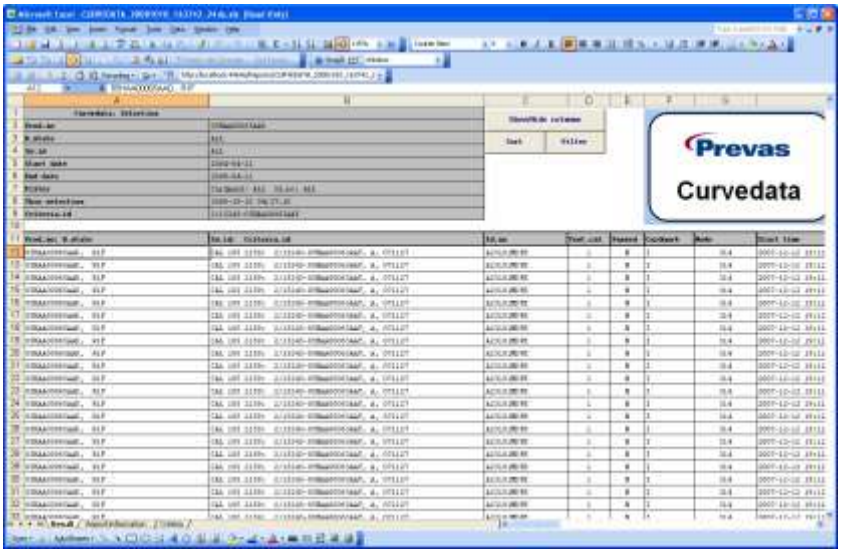


   Enter the ID number(s) or serial numbers you want to search for in the 30 text fields.
   You can import serial numbers from a semicolon-separated file by clicking on the **[Browse…]** button and selecting the file you wish to import in the navigator window that appear. The input file must be a list with ID numbers with a semi colon (;) on each row, see example:

   The alternative format is one serial number on each row but omit the semi colon (;). To load the file click button **[Load Individuals]**.
10. Click on Search.

Curvedata Result Sheet

Below is an example of a Result sheet:



The **Curvedata: Selection** sheet displays information about the individuals contained in the search criteria.

The report is laid out as follows:

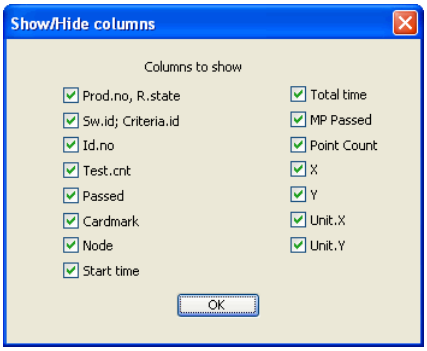
- Columns A – C contains global product information
- Columns D – O contains test information

To print the report, select File/Print.

How to Show/Hide Columns

To make the report easier to read you can choose which columns to show.

1. Click on Show/Hide columns to open the **Show/Hide Columns** dialog box:



2. Select the columns that you want to include in the report.
3. Click on OK.

How to Sort Information

Information in the **Curvedata: Selection** sheet can be sorted.

1. Click on Sort.
2. Choose the sort criteria from the drop-down lists.

3. Select whether to sort by **Ascending** or **Descending** order by clicking the relevant radio button.
4. Select whether you want a **Header row** or not by clicking the relevant radio button.
5. If you click on Options... the **Sort Options** dialog box will appear:

Here you have the possibility to enter further sorting options. Click on Cancel to return to the previous menu or click on OK to confirm the sort options.

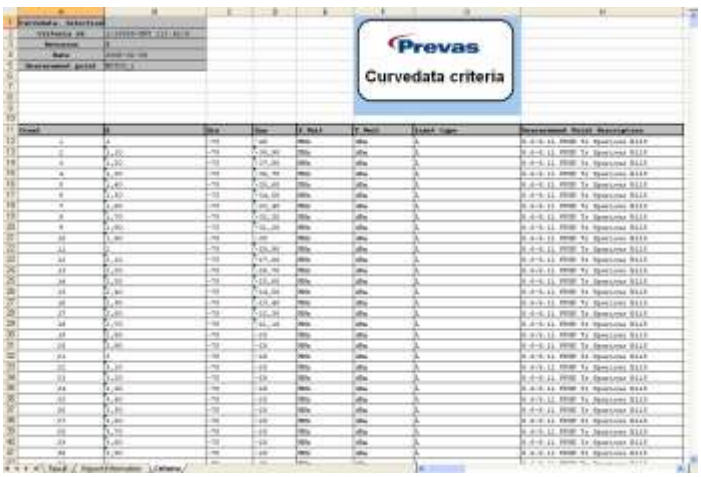
6. Click on OK to sort the information.

How to Filter Information

When you click on Filter you activate the Excel filter function, thereby making it possible to filter out the rows that you are not interested in.

Criteria Sheet

If there are any limits for the curve, they are displayed in a separate sheet in Excel. This is an example on how it could look:

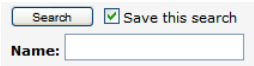


Save a Search

In Curvedata it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain products. You can specify these products in a search, and each time you need reports for these products, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Curvedata Report. When you have filled in all criteria select **Save this search** check box:

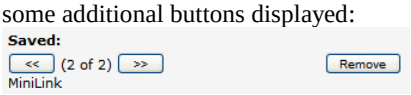
   Supply a name for your search so you can load it later.

2. When you click the search is saved and can be loaded later.

3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.

3. Click on .

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.

2. Click on .

Infodata

Description

Infodata is an application that finds information about tests that have been carried out on a product, for example, how a product has been tested.

As the information is presented in an Excel sheet it is possible to produce the report in several ways, for example, table or graph format.

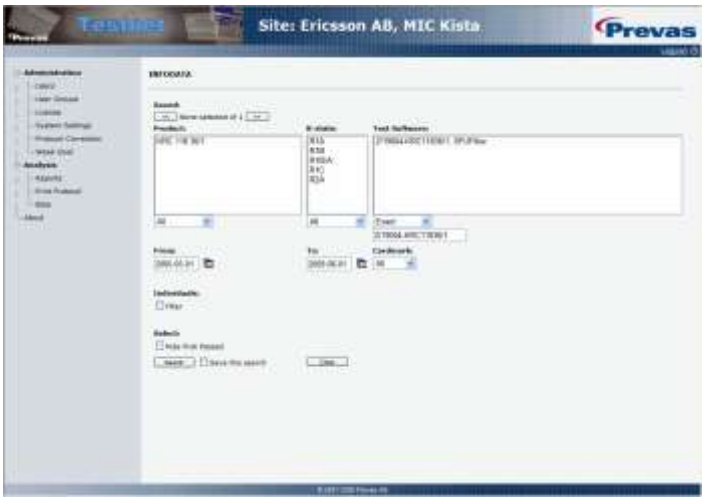
As Infodata is an Excel application all normal Excel features are available. In addition, some special Infodata functions exist:

Show/Hide columns	Gives you the possibility to show or hide columns.
Sort	Enables you to sort data.
Filter	Gives you the possibility to filter information.
Show not passed Id	Shows only individuals that have failed the latest test.

Create an Infodata Report

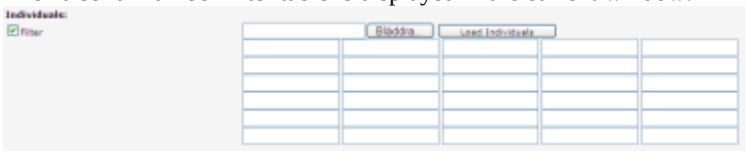
This is how you create an Infodata report:

1. Click on INFODATA in the Analysis - Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for a **Product**. If you click in the list of available products the selected product will appear in the product number field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the product number, for example ROA. You can also let the product combo display option **"All"** and instead limit the search in other ways.
3. The **R-state** search works just as **Product**.
4. Select the **Test Software** if you want to limit your search on the software just as for **Product** and **R-state**.
5. Enter the period of time you want the report to cover. The year should be entered first, followed by month and then day (YYYY-MM-DD). For example, the 23rd of March, 2008 will be entered like this: 2008-03-23. You can also click the calendar button and get help with selecting your date.
6. Select whether the search criteria should include all cardmarks (**All**), exclude cardmarks (**Without**) or include a specific cardmark (**Specific**).

   Note: If you choose **Specific** you have to enter a list of maximum 40 cardmarks. For example, ABX1 will include cardmarks A, B, X and 1 in the search.
7. You can use a serial number filter by clicking in the check box **Filter**. Then a serial number filter table is displayed in the current window:

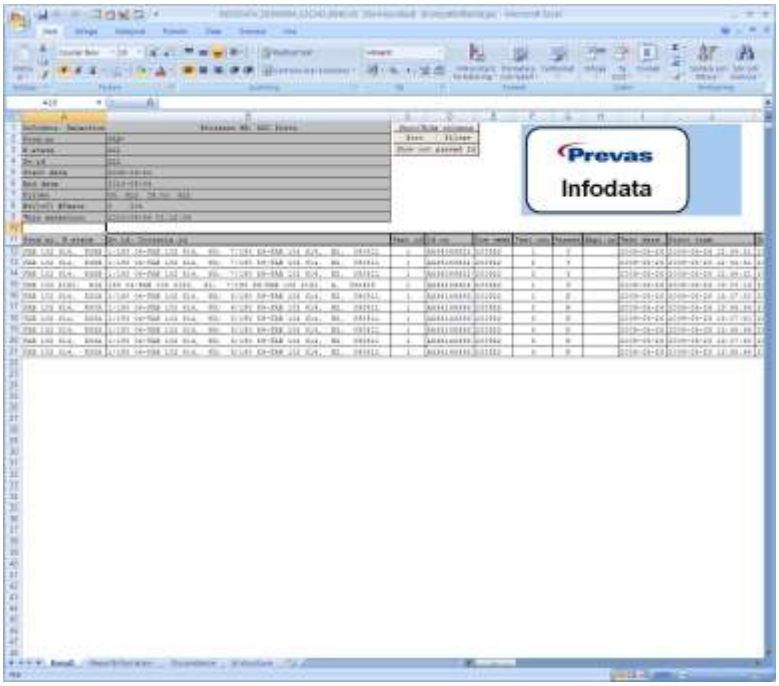


   Enter the ID number(s) or serial numbers you want to search for in the 30 text fields.
   You can import serial numbers from a semicolon-separated file by clicking on the **[Browse…]** button and selecting the file you wish to import in the navigator window that appear. The input file must be a list with ID numbers with a semi colon (;) on each row, see example:

   The alternative format is one serial number on each row but omit the semi colon (;). To load the file click button **[Load Individuals]**.
8. If you do not want to see the individuals that passed first time click in the check box **Hide first passed**.
9. Click on Search.

Infodata Result Sheet

Below is an example of a result sheet:



The **Infodata: Selection** sheet displays information about the individuals contained in the search criteria.

The report is laid out as follows:

- Columns A – E contains global product information
- Columns F – AF contains test information

To print the report, select File/Print.

How to Show/Hide Columns

To make the report easier to read you can choose which columns to show.

1. Click on Show/Hide columns to open the **Show/Hide Columns** dialog box:

2. Select the columns that you want to include in the report.
3. Click on OK.

How to Sort Information

Information in the **Infodata: Selection** sheet can be sorted.

1. Click on Sort.
2. Choose the sort criteria from the drop-down lists.

3. Select whether to sort by **Ascending** or **Descending** order by clicking the relevant radio button.
4. Select whether you want a **Header row** or not by clicking the relevant radio button.
5. If you click on Options... the **Sort Options** dialog box will appear:

Here you have the possibility to enter further sorting options. Click on Cancel to return to the previous menu or click on OK to confirm the sort options.

6. Click on OK to sort the information.

How to Filter Information

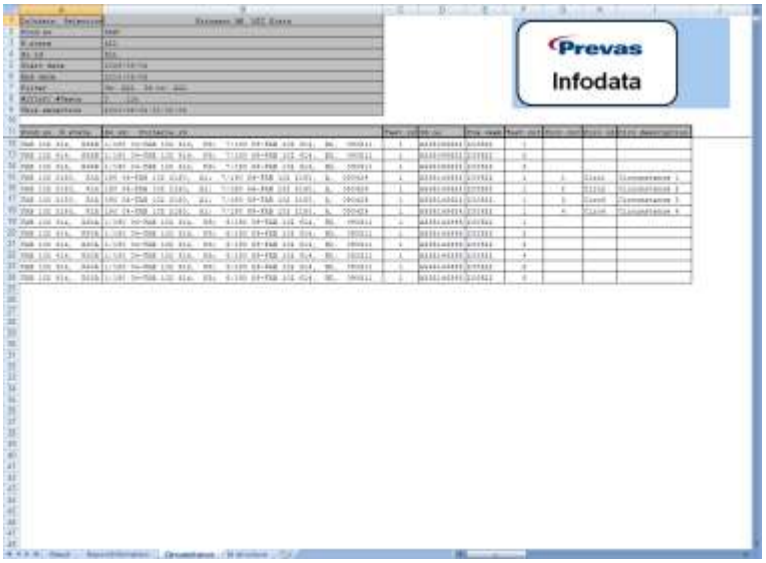
When you click on Filter you activate the Excel filter function, thereby making it possible to filter out the rows that you are not interested in.

How to Only Show Individuals That Have Failed

By clicking on Show not passed Id, the **Infodata: Selection** sheet only shows the individuals that have the highest test count's pass/fail flag = 'N' and the Action Code is not 99 (Code 99 = scrapped).

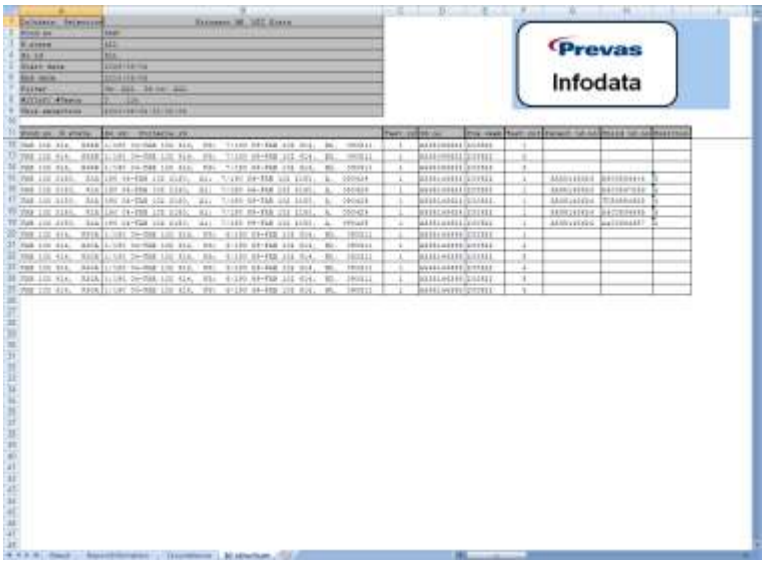
Circumstance Sheet

If there are any circumstances for the different tests, they are displayed in a separate sheet in Excel. This is an example on how it could look:



Id Structure Sheet

If there are any id structures for the different tests, they are displayed in a separate sheet in Excel. This is an example on how it could look:

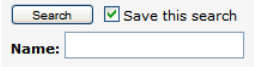


Save a Search

In Infodata it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain products. You can specify these products in a search, and each time you need reports for these products, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create an Infodata Report. When you have filled in all criteria select **Save this search** check box:

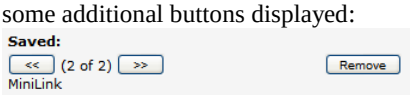


Supply a name for your search so you can load it later.

2. When you click Search the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:



2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on Search.

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on Remove.

Machtime

Description

Machtime is an application used to view the usable time of a node (test station).

With Machtime it is possible to see when every test-run was started and when it finished, on a specific test station.

The results from these findings are presented in both graphical and numerical format.

The Machtime graph is displayed as a two-dimensional grid. Days are shown on the X-axis and Time on the Y-axis.

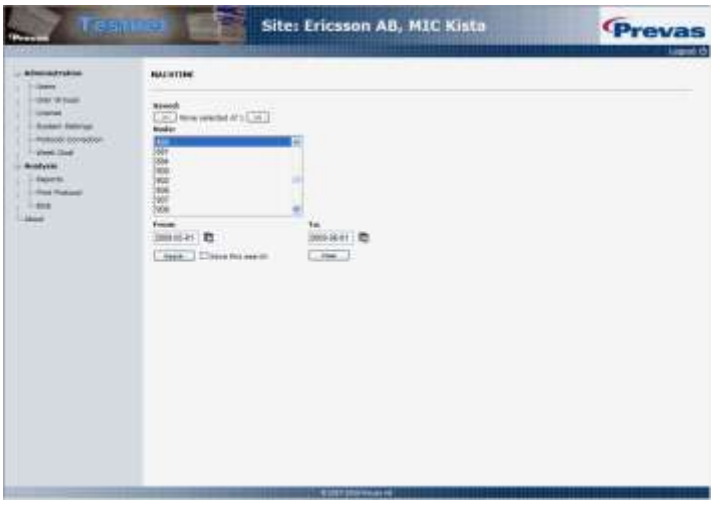
As the information is presented in an Excel sheet it is possible to produce the report in several ways, for example, table or graph format.

As Machtime is an Excel application all normal Excel features are available. In addition, some special Machtime functions exist.

Create a Machtime Report

This is how you create a Machtime report:

1. Click on MACHTIME in the Analysis - Reports window, and then on Select.
   The following page will appear.



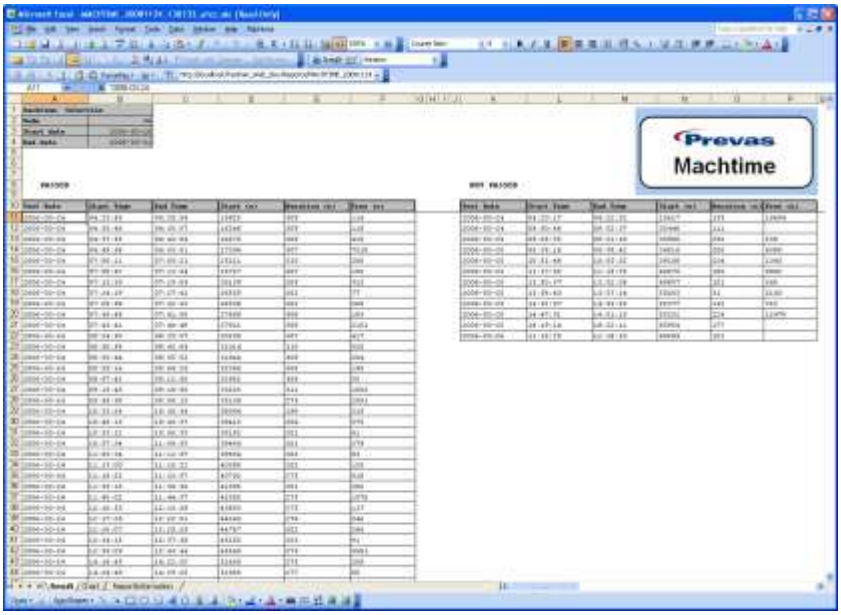
2. Select the **Test Station** number.
3. Enter the period of time you want the report to cover. The year should be entered first, followed by month and then day (YYYY-MM-DD). For example, the 23rd of March, 2008 will be entered like this: 2008-

03-23. You can also click the calendar button and get help with selecting your date.

4. Click on Search.

Machtime Result Sheet

Below is an example of a result sheet:



The **Machtime: Selection** sheet displays information about the search criteria.

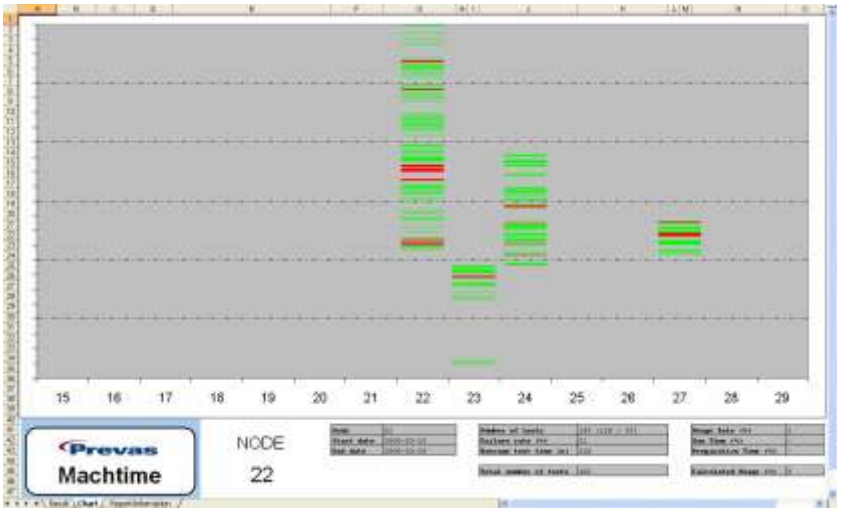
The report is laid out as follows:

- Columns A – F contains information on passed tests
- Columns K – P contains information on not passed tests

To print the report, select File/Print.

Machtime Chart Sheet

Below is an example of a chart sheet:



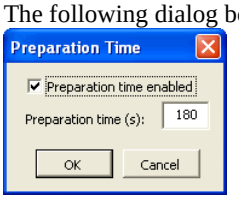
The bar chart appears in a spread view. Each coloured box represents whether an object has passed or failed. A green box means the object has passed the test(s), and red shows the object failed.

Preparation Time

PreTime is the calculated total time that the test has been in rest due to reloading purposes, for example, when a new test object is being inserted.

How to View Preparation Time

1. Select Machtime/Preparation Time from the menu.
   The following dialog box will appear:



2. Select **Preparation time enabled**.
3. Enter the expected test preparation time in the **Preparation time (s)** field.
4. Click on

.

The time taken to load the test objects will now be accumulated and presented on screen as yellow bars.

Max Time

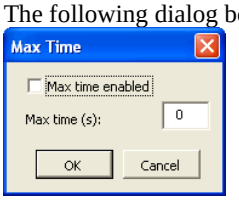
Max time is the expected time needed to perform a test. For example, if it is known that a test should be completed within ten minutes (600 seconds), set the Max time value to 600 seconds, and it will be possible to see tests that required longer test time.

To fully benefit from the Max time function you need to have previous knowledge of the node (test station), for example, you need to know:

- Whether more than one product is tested at this station.
- How long did it take to run the original test? This is important because when a test program is revised it can take longer to run.

How to View Max Time

1. Select Machtime=>Max Time from the menu bar.
   The following dialog box will appear:



2. Select **Max time enabled**.
3. Enter the maximum time expected for a test to run in the **Max time (s)** field.
4. Click on

.

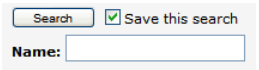
The time taken to test the objects will now be accumulated and presented on screen as blue bars.

Save a Search

In Machtime it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up a certain test station. You can specify the node in a search, and each time you need reports for the test station, just use the saved search.

How to Save a Search

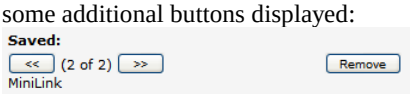
1. Select the search criteria you want just as in section Create a Machtime Report. When you have filled in all criteria select **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Run a Saved Search

4. If you have saved searches when you enter the report, there will be some additional buttons displayed:

5. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criteria are displayed.
6. Click on .

How to Delete a Saved Search

3. Make sure the criteria for the search you want to delete is displayed.
4. Click on .

Measdata

Description

Measdata is an application used to analyse measurement data from the test results. With this application you can look at the distribution of measurement points as well as the trend that they are following. It is also possible to make a summary of this analysis and create a sheet of the faulty per individual.

By creating a node deviation sheet you can easily see if a test station (node) is drifting.

As the information is presented in an Excel sheet it is possible to produce the report in several ways, for example, table or graph format.

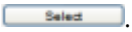
As Measdata is an Excel application all normal Excel features are available. In addition, some special Measdata functions exist:

Previous	Shows the previous sheet.
Next	Shows the next sheet.
Start new selection	Opens the search criteria dialog box.
Show col.	Show selected columns only. The **[Hide col.]** button hides selected columns.
Show rows	Show selected rows only. The **[Hide rows]** button hides selected rows.
Delete columns	Deletes marked columns.
Delete rows	Deletes marked rows.
Sort	Opens the sort criteria dialog box.
Filter	Opens the Excel filter dialog box.
Show out of limits	Marks failed measurement values according to the selected limit or criteria file.
Show highest testcnt	Shows the latest tested individuals.
Create menu	Create the Measdata menu.

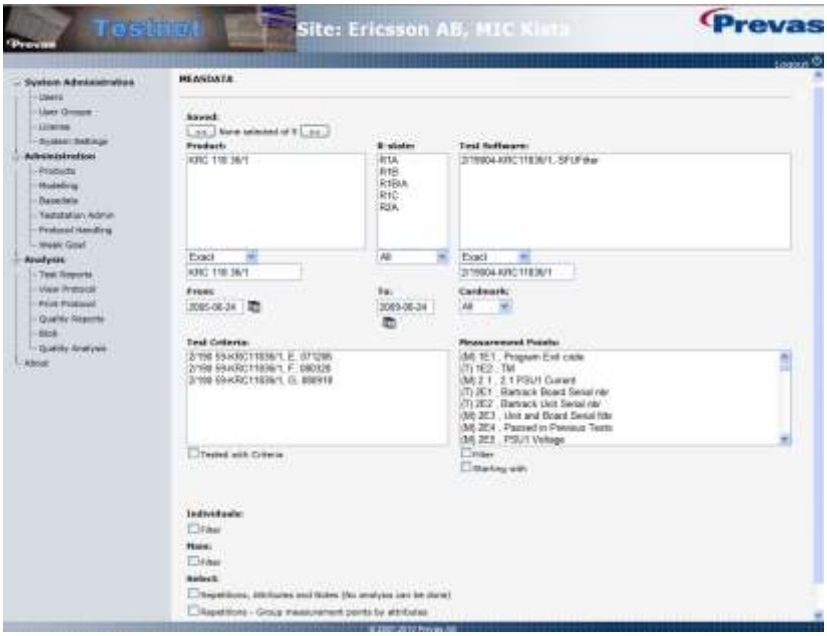
Create a Measdata Report

This is how you create a Measdata report:

1. Click on

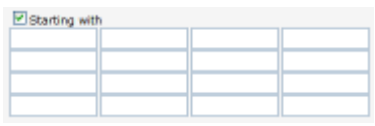
in the Analysis - Reports window, and then on 

.
The following page will appear.



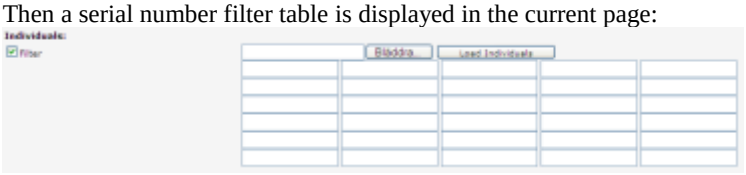
2. There are three ways you can search for a **Product**. If you click in the list of available products the selected product will appear in the product number field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the product number, for example ROA. You can also let the product combo display option **"All"** and instead limit the search in other ways.
3. The **R-state** search works just as **Product**.
4. Select the **Test Software** if you want to limit your search on the software just as for **Product** and **R-state**.
5. Enter the period of time you want the report to cover. The year should be entered first, followed by month and then day (YYYY-MM-DD). For example, the 23rd of March, 2008 will be entered like this: 2008-03-23. You can also click the calendar button and get help with selecting your date.
6. Select whether the search criteria should include all cardmarks (**All**), exclude cardmarks (**Without**) or include a specific cardmark (**Specific**).

   Note: If you choose **Specific** you have to enter a list of maximum 40 cardmarks. For example, ABX1 will include cardmarks A, B, X and 1 in the search.
7. Then it is time to select a **Test Criteria**. Click on the wanted criteria in the list. If you want to have only individuals tested with those specific test criteria in your result check the checkbox below the list.
8. You can filter data by selecting rows in **Measurement Point** list and then check the **Filter** check box. Or you can check the **Starting with** check box and supply the beginning of some measurement point names in the measurement point filter table displayed.



Enter beginning of the measurement point name(s) you want to search for in the 16 text fields.

9. You can use a serial number filter by clicking in the check box **Filter**. Then a serial number filter table is displayed in the current page:



Enter the ID number(s) or serial numbers you want to search for in the 30 text fields.
You can import serial numbers from a semicolon-separated file by clicking on the **[Browse…]** button and selecting the file you wish to import in the navigator window that appear. The input file must be a list with ID numbers with a semi colon (;) on each row, see example:

```
A57003DGF7;
A57003DGFP;
A57003DGFN;
A57003DGFN;
A57003DGFM;
A57003DGFM;
A57003DGFL;
A57003DGFD;
A57003DGFC;
A57003DGFC;
A57003DGF9;
A57003DGF5;
A57003DGB4;
```

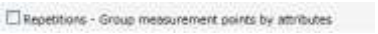
The alternative format is one serial number on each row but omit the semi colon (;). To load the file click button **[Load Individuals]**.

10. To change the main filter check **Filter** checkbox.
The **Main Filter** selections will appear:

Click the relevant radio button and then enter the **Start/End Time**. (in the format HH:MM:SS)
From the drop down list for **Day of Week** click on the relevant day or choose **All**.

11. If you want to see repetitions, attributes and notes for measurement points check the checkbox:

12. If you want to group measurement points by attributes check the checkbox:

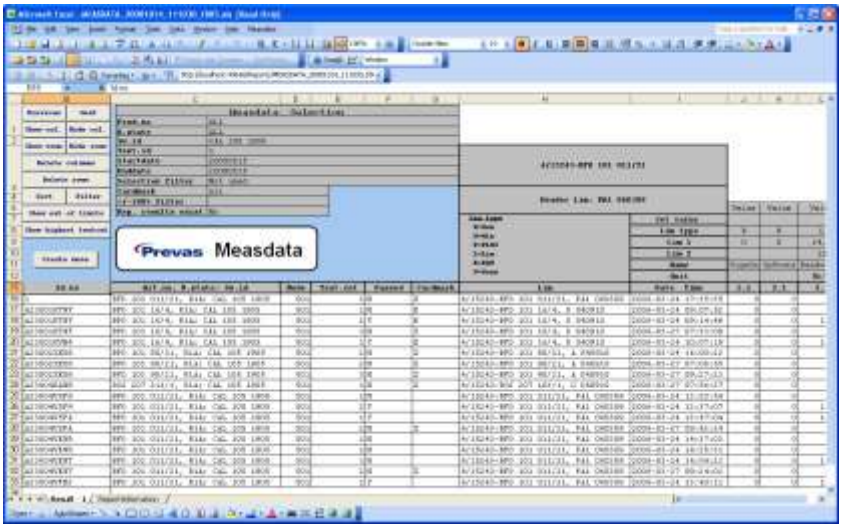


13. Click on

.

Measdata Result Sheet

Below is an example of a result sheet:



The report is laid out as follows:

- Columns A – B contains the ID number
- Column C shows the product number, R-state and software id of the individual.
- Column D shows the node number where the test was performed
- Column E shows how many times the individual has been tested
- Column F shows whether the individual passed or failed the test
- Column G shows the cardmark
- Column H shows the limit file
- Column I shows the date and time of the test

The remaining columns show test results. The column header shows the name of the test point and information on the latest search criterion is shown in the **Measdata: Selection** box (see below).

Measdata: Latest se	
Prod.no	KRC 118 19/1
R.state	R2X
Sw.id	190 04-KRC 118 19/1; Espre
Test.id	1
Startdate	20050101
Enddate	20051231
Selection filter	Not used
Cardmark	All
+/-180% filter	Used
Rep. results exist	Yes

All information included in the report is sorted by ID number (serial number).

Above the test result columns, the following information is displayed:

Header Lim: Y	050406
Lim type X=Max M=Min P=PLMI L=Lim B=EQU N=None	**Set value**
	Lim type
	Lim 1
	Lim 2
	Name
	Unit

These rows are headers to information to the right of the header:

Set value: Expected test result

Lim type: The limit you set, where:

X = max value
M = min value

P = plus/minus limits
L = high and low limit
B = equal to
N = no limit

Lim 1: First limit value (left)

Lim 2: Second limit value (right)

Name: Name of test point

Unit: Unit of test value

To print the report, select File/Print.

To see values that are above or below the values you have set, click on Show out of limits. The data outside the limits is then shown in red.

To see individuals with the highest test count (latest test) click on Show highest testcnt. The result is visualized as a Measdata result sheet.

In addition to the main result sheet, you can view the following information:

- Summary/measure point sheet
- Trend sheet
- Node deviation sheet
- Capability analysis sheet
- Timeplot sheet
- Overall capability sheet
- Pareto sheet
- Continuous R&R sheet
- Continuous R&R Pareto sheet
- Continuous R&R testpoint sheet
- Continuous R&R teststation sheet
- Gauge R&R sheet
- Gauge R&R Pareto sheet
- Gauge R&R testpoint sheet
- Instability sheet
- Capability report
- Continuous R&R report
- Gauge R&R report
- Faulty/idno sheet
- Save as JPG-picture
- Glossary
- Glossary Graphs

These alternatives are available by selecting Measdata from the menu bar and then clicking on desired menu item.

Summary/Measure Point Sheet

The summary/measure point sheet can be created to show either all measure points or only measure points that have been pre-selected.

Measurement values within +/- 180% of the tolerance interval are included in the calculations.

Finding the Tolerance Interval

If Two Limits Have Been Set

If we take, for example, four as the minimum limit and six as the maximum limit the distance between four and six equals 100%. The minimum and maximum limits set at 180% are 3.2 and 6.8 respectively. See below:

Tolerance Level –180%	**Minimum Level**	**Average Value**	**Maximum Level**	**Tolerance Level +180%**
3.2	4	5	6	6.8

Note: Only measurement points between 3.2 and 6.8 will be used for the statistic calculations.

If Only One Limit Has Been Set

Note: If only one limit has been set, then Measdata will create a fictitious limit by reflecting the existing limit in the average value. See below:

Tolerance Level –180%	**Set Minimum Level**	**Average Value**	**Reflective Maximum Level**	**Tolerance Level +180%**
2.4	4	6	8	9.6

Note: If all measurement values have failed then the average value will be treated as if it was situated on the correct side of the limit.

Create a Summary/Measure Point Sheet, part 1

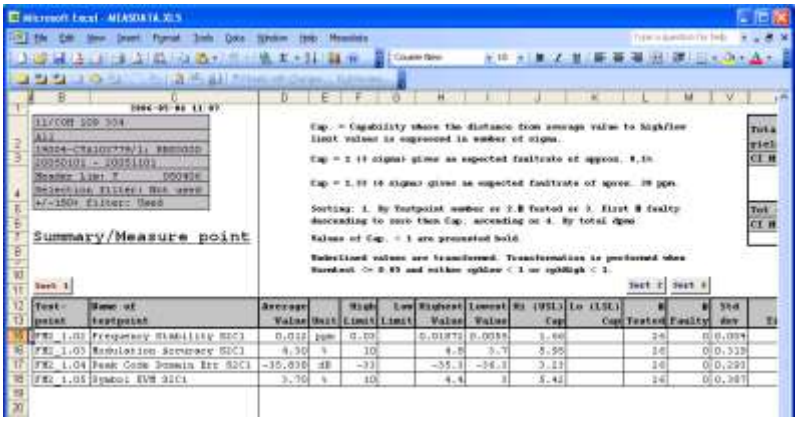
To create a summary/measure point sheet, using selected measure points:

1. In the **Measdata: Selection** sheet mark the columns you are interested in.

   Note: If more than one column is to be selected then you need to hold down **<Shift>** on your keyboard at the same time as you click on the columns.

2. Select Measdata/Create the summary/measure point sheet from the menu bar
3. Select the radio button **Use selected measure points**.
4. Click on .

The following is an example of the summary sheet:



You can sort the summary table either by test point, number of faults or total DPMO.

Create a Summary/Measure Point Sheet, part 2

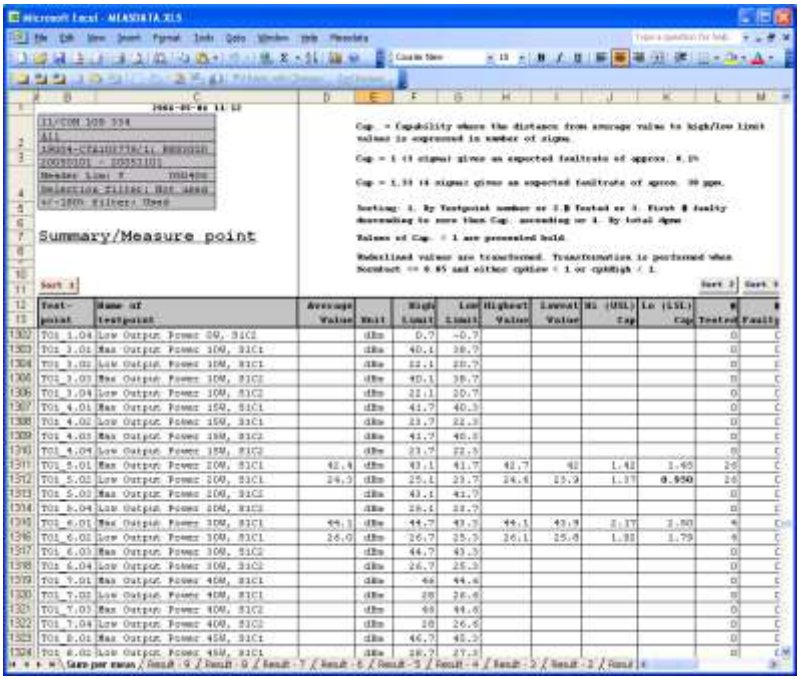
To create a summary/measure point sheet using all measure points:

1. Select Measdata/Create the summary/measure point sheet from the menu bar.
2. Click the radio button **Use all measure points**.
3. Click on OK.

Note: After you have clicked on OK, status messages will appear until the sheet is complete.

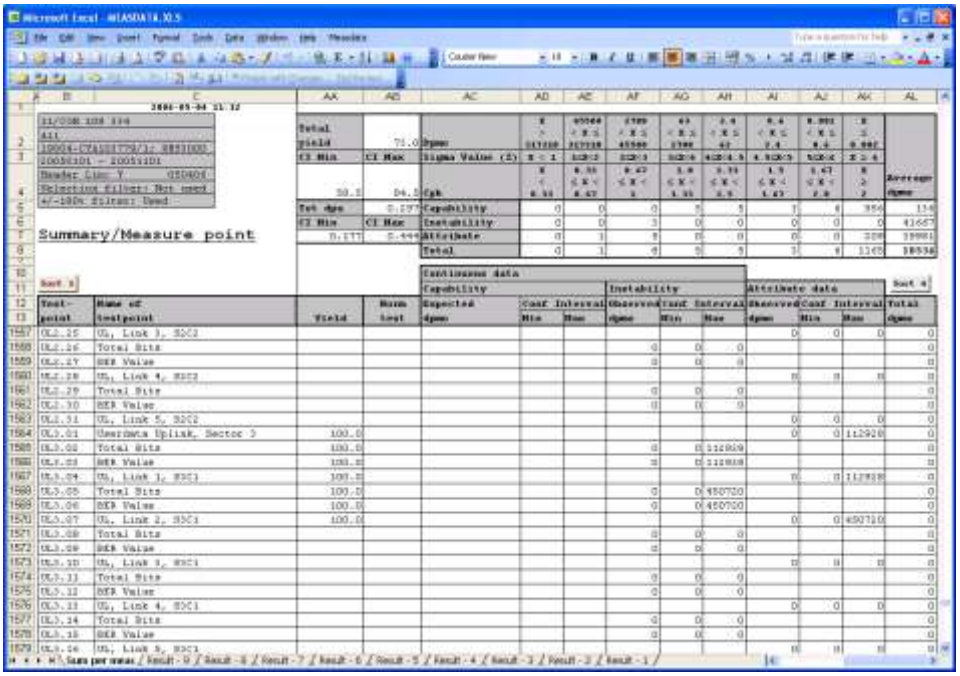
The summary table can be sorted either by test point, number of tested, number of faults or total DPMO.

Below is an example of the Summary/Measure Point sheet:



Note: If High/Low Capability is lower than 1 then the figure is presented embossed.

Example: To the right in the Summary/Measure Point sheet following information appear:



Information found on this part of the Summary/Measure Point sheet:

- Yield.
- Norm test.
- Continuous data, divided into Capability and Instability data with DPMO value and confidence interval for its DPMO value.
- Attribute data with DPMO value and confidence interval for its DPMO value.
- Total DPMO.
- Overall capability table.

Detailed explanation of the different columns, see Glossary.

Below is an example of the Overall capability table:

The information in the overall capability table consist of a frequency table that shows the occurrence of measurement points that got capability values within certain given intervals, field for total yield with confidence interval and total dpu with confidence interval. A mean value in DPMO is shown, divided into capability, instability, attribute and total DPMO. Confidence interval is 95 %.

The Trend Sheet

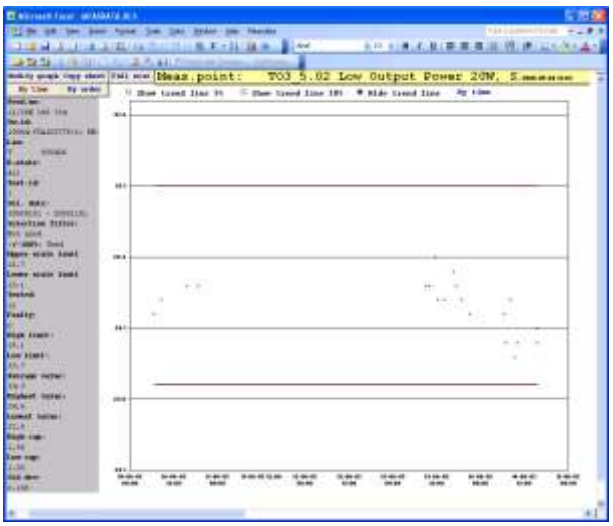
The Measdata trend sheet presents the measurement values for a selected measurement point. This sheet can only be created if the result sheet or the summary sheet has been activated. The measurement values are shown as crosses on the graph. With the trend sheet you also have the possibility to show a trend line. This trend line can indicate whether the measurement values are drifting.

How to Create a Trend Sheet

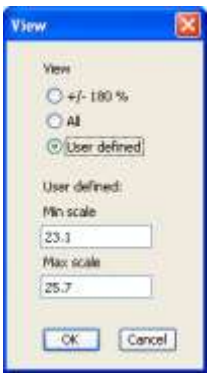
To create a Trend sheet:

1. Click on the column you are interested in, in the **Measdata: Selection** sheet.

2. Select Measdata/Create the trend sheet.
   The following sheet will appear:



3. To modify the graph click on Modify graph, the following dialog box will appear:



4. By clicking a radio button you can select one of three ways to view the trend sheet:

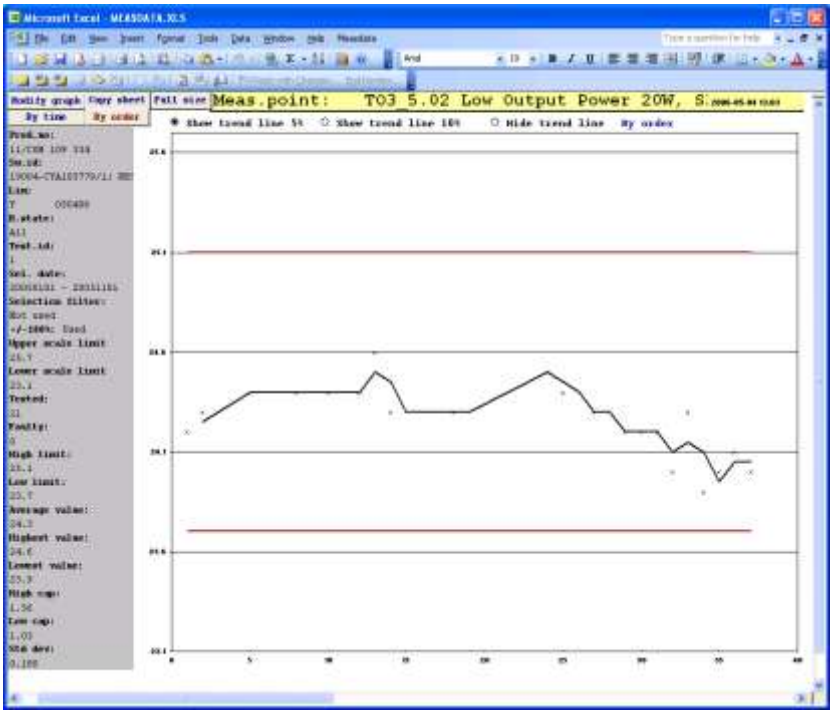
   - **+/- 180%** - this shows data for the limits you have set plus data that is 40% over and under these limits.
   - **All** shows all results.
   - **User defined** enables you to enter:

     Min scale
     Max scale

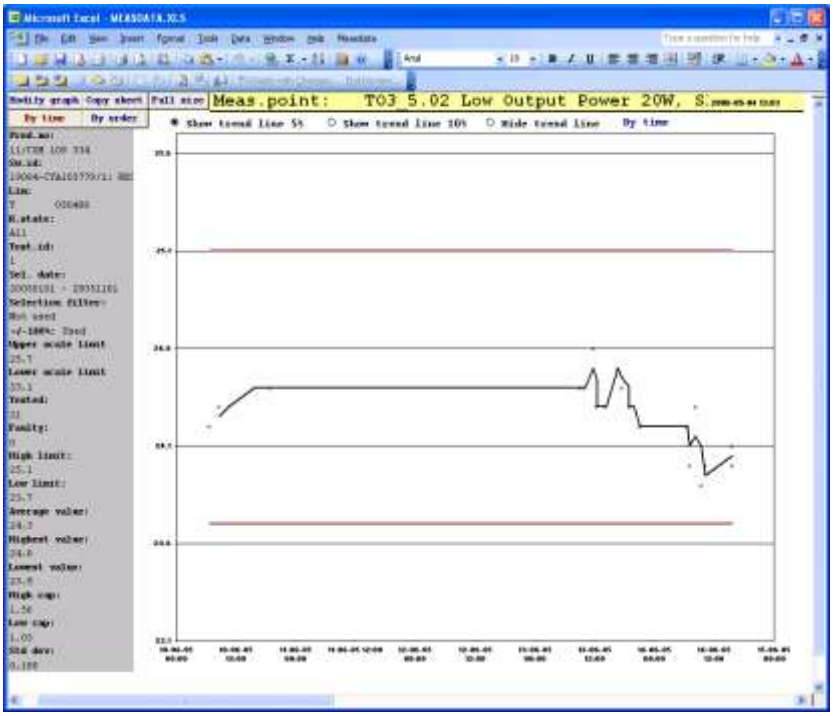
5. To set the trend line, select either **Show trend line 5%** or **Show trend line 10%** radio button. To hide the trend line again, select the **Hide trend line** radio button.

You can view the graph 'by order' or 'by time'. The default is set to 'by time', to change this to 'by order' click on By order. To return to 'by time' click on By time.

Below are examples of the different views:



Trend Sheet by order, show trend line 5%.



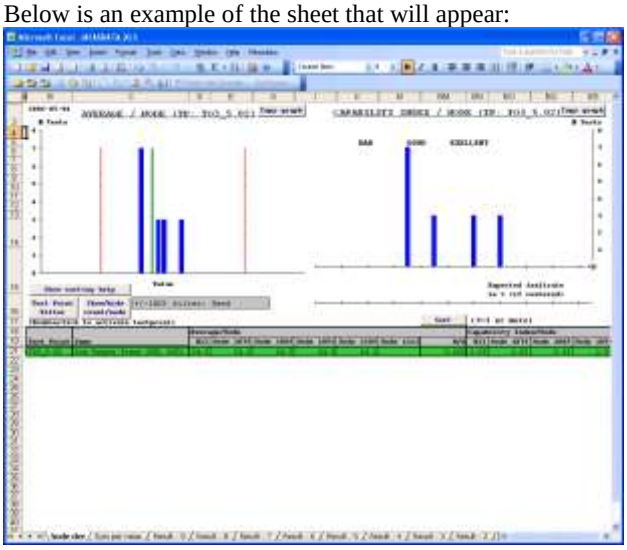
Trend Sheet by time, show trend line 5%.

The Node Deviation Sheet

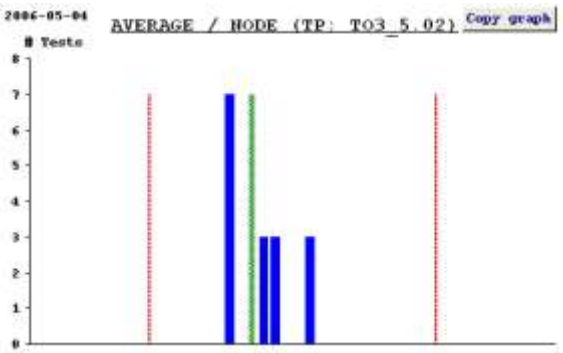
In the Measdata node deviation sheet it is possible to see if a test station (node) is drifting. This sheet can only be created if the summary sheet is activated. It is possible to show the node deviation for all the measurement points in the summary/measure point sheet or for a selection.

How to Create a Node Deviation Sheet

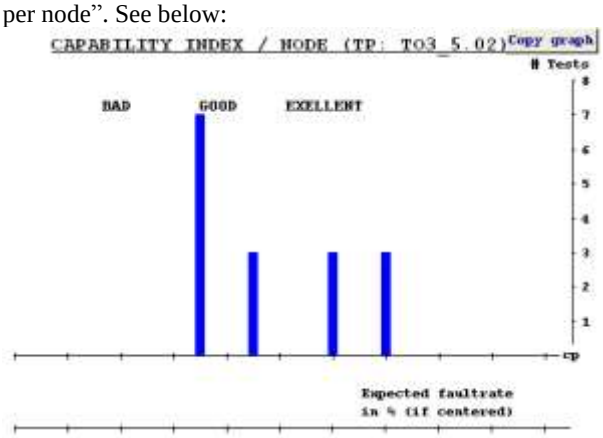
1. Click on the row you are interested in, in the Measdata summary/measure point sheet.
   Note: If you do not select a row then all measurement points will be selected.
2. Select Measdata/Create the node deviation sheet from the menu bar.
3. Select one of the radio buttons **Use selected measure points** or **Use all measure points**.
   Below is an example of the sheet that will appear:



The graph to the left of the sheet shows "Average per node". See below:



Whereas the graph to the right of the sheet shows "Capability index per node". See below:



Average/node: In this graph the limit values are shown as red lines,

and the y-axis shows the number of tests carried out.

Capability index/node: If the distribution is centred this graph corresponds to the expected fault rate. The x-axis shows capability and the y-axis shows the number of tests.

The data for the graphs is gained by double clicking on a **Test Point** in the table. This row will be highlighted with yellow and an arrow will appear in column A to indicate which Test Point the graphs are based on.

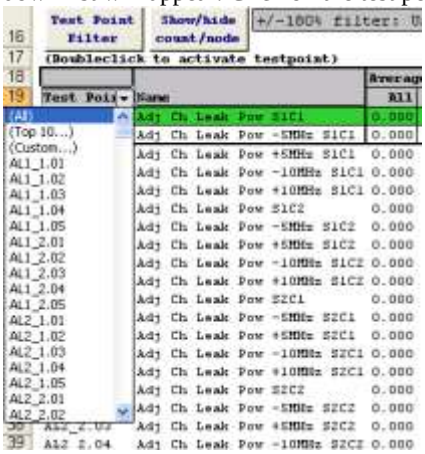
There are two ways to sort the data in the table:

Sort A/d (Average/distance) - This is the difference between the maximum and minimum average value/distance between the high and low limit value.

Sort Ci max/Ci min – Maximum capability index/minimum capability index.

You can see the above information on-line, by clicking Show sorting help.

4. To activate a filter click on Test Point Filter.
   An arrow will appear on the Test Point, if you click on this a drop-down list will appear. Click on the test point you require. See below:



6. To hide or show the number of times the different test points have been tested at the different nodes click on Show/hide count/node.

The Capability Analysis Sheet

The Measdata capability analysis sheet presents the distribution of the selected measurement point and information about process data and overall capability. This sheet can only be created if the result sheet or the summary sheet has been activated.

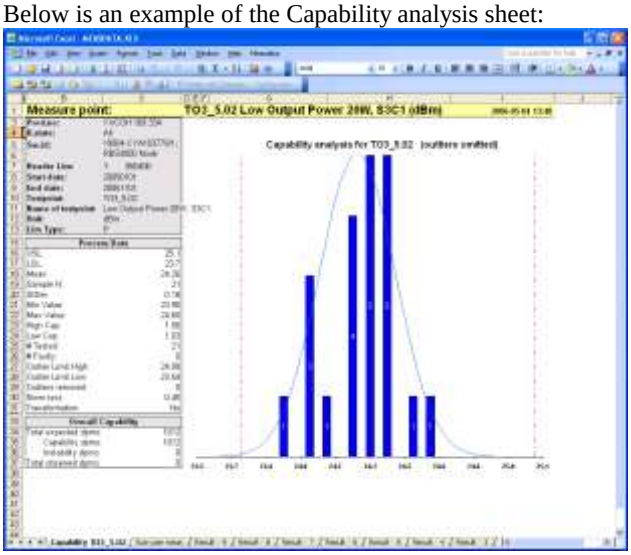
The graph in the Capability sheet shows the distribution of measured values with its limit values and a normal distribution curve. Measurement point specific calculations are presented in the ”Process data” and ”Overall Capability” boxes.

How to Create a Capability Analysis Sheet

To create a capability analysis sheet:

1. Click on the measurement point you are interested in, in the **Measdata: Result** sheet or click on a row in the **Summary** Sheet.

2. Select Measdata/Create the capability analysis sheet from the menu bar.
   Below is an example of the Capability analysis sheet:



The Timeplot Sheet

The Measdata timeplot sheet presents two graphs showing the selected measurement point values and a table including process data and overall capability. This sheet can only be created if the result sheet or the summary sheet has been activated.

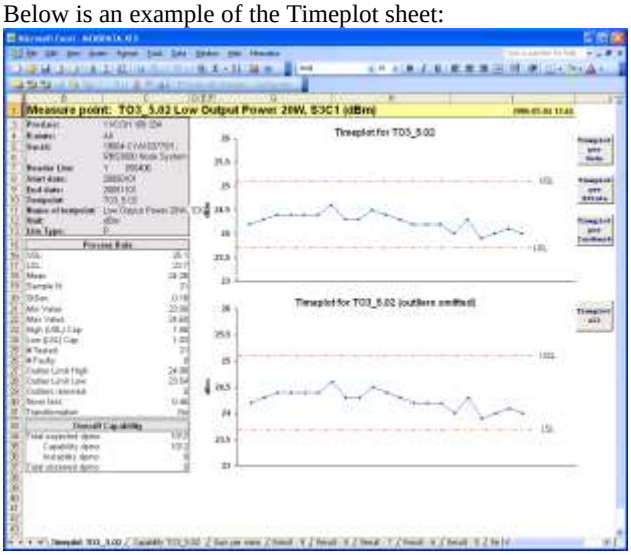
The graphs in the Timeplot sheet presents one timeplot covering all measured values and one timeplot covering all measured values with outliers omitted. The selected measurement point values may be sorted in different ways; Timeplot per Node, Timeplot per R-state or Timeplot per Cardmark. To reset the sorting, click the "Timeplot all" button.

Measurement point specific calculations are presented in the "Process data" and "Overall Capability" boxes.

How to Create a Timeplot Sheet

To create a Timeplot sheet:

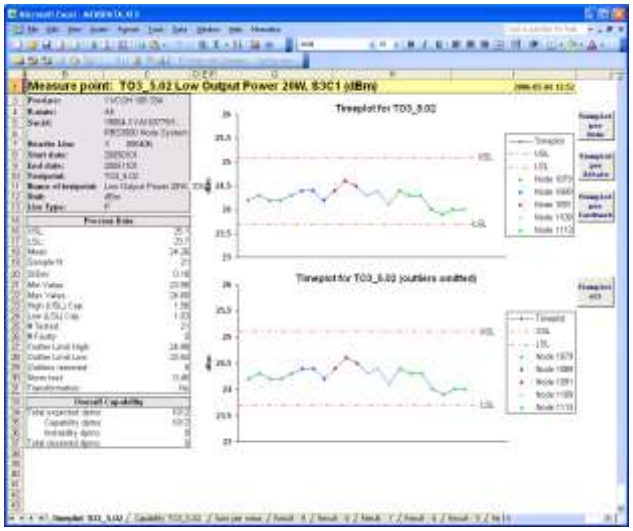
1. Click on the measurement point you are interested in, in the **Measdata: Result** sheet or click on a row in the **Summary** Sheet.
2. Select Measdata/ Timeplot sheet from the menu bar.
   Below is an example of the Timeplot sheet:



To sort the measurement point values in different ways use the buttons on the right side of the graphs. The following sort buttons are predefined:

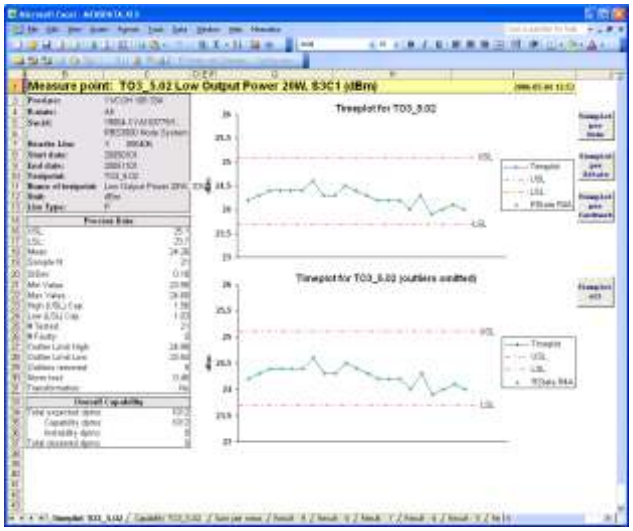
1. Click on button

to sort the measured values by Node. Below is an example of the Timeplot per Node graph:



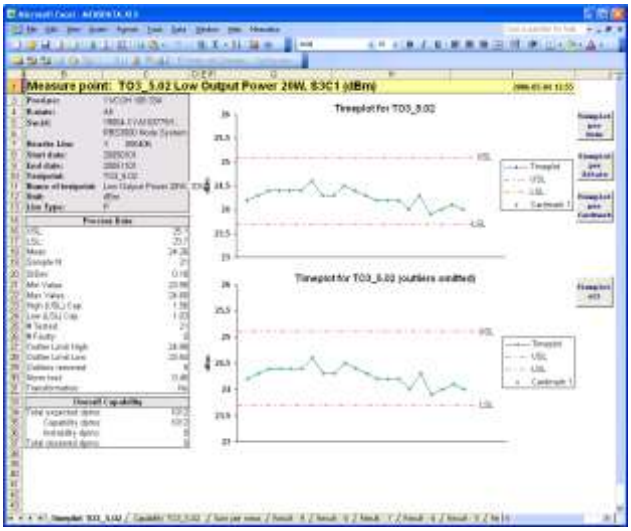
2. Click on button

to sort the measured values by R-state. Below is an example of the Timeplot per R-state graph:



3. Click on button

to sort the measured values by Cardmark. Below is an example of the Timeplot per Cardmark graph:



4. Reset the graphs by clicking on button

The Overall Capability Sheet

The Measdata overall capability sheet presents overall information for all measurement points in the summary/measure point sheet. This sheet can only be created if the summary sheet has been activated.

The graph in the overall capability sheet shows the number of measurement points that have capability value within certain given intervals and the staples in the graph may be divided into capability, instability and attribute data. The table below the graph shows the calculated base data for the graph. Example of the overall information in the table:

	X > 117330	45588 < X ≤ 117330	2788 < X ≤ 45588	63 < X ≤ 2788	3.4 < X ≤ 63	0.6 < X ≤ 3.4	0.092 < X ≤ 0.6	X ≤ 0.092
Sigma Value (Z)	X < 1	1 ≤ X < 2	2 ≤ X < 3	3 ≤ X < 4	4 ≤ X < 4.5	4.5 ≤ X < 5	5 ≤ X < 6	X ≥ 6
Cpk	X < 0.33	0.33 ≤ X < 0.67	0.67 ≤ X < 1	1.0 ≤ X < 1.33	1.33 ≤ X < 1.5	1.5 ≤ X < 1.67	1.67 ≤ X < 2.0	X ≥ 2
Capability	0	0	0	5	5	3	6	950
Instability	0	0	3	0	0	0	0	0
Attribute data	0	1	5	0	0	0	0	205
Total	0	1	8	5	5	3	6	1165

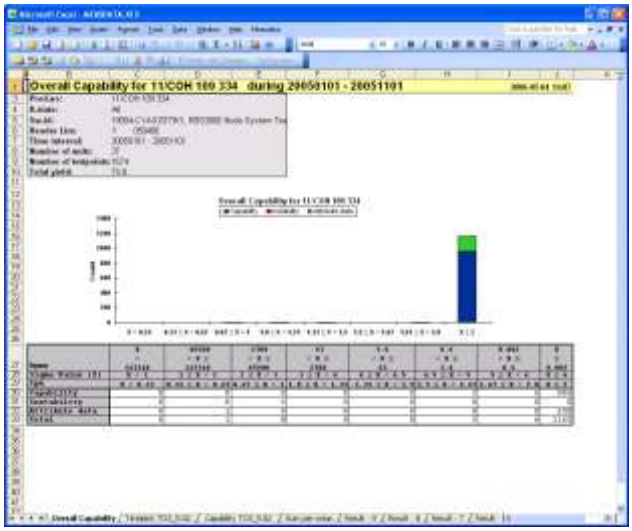
How to Create an Overall Capability Sheet

The summary/measure point sheet is activated.

To create an Overall Capability sheet:

1. Select Measdata/Create the overall capability sheet from the menu.

Below is an example of the Overall Capability sheet:



The Pareto Sheet

The Measdata Pareto sheet presents overall information for all measurement points from the summary/measure point sheet. This sheet can only be created if the summary sheet has been activated.

The 10 bars in the Pareto sheet shows most frequently failing measurement points concerning Total DPMO (Capability, Instability and Attribute data), Failure rate, Capability (CKP and DPMO), Instability DPMO and Attribute data DPMO.

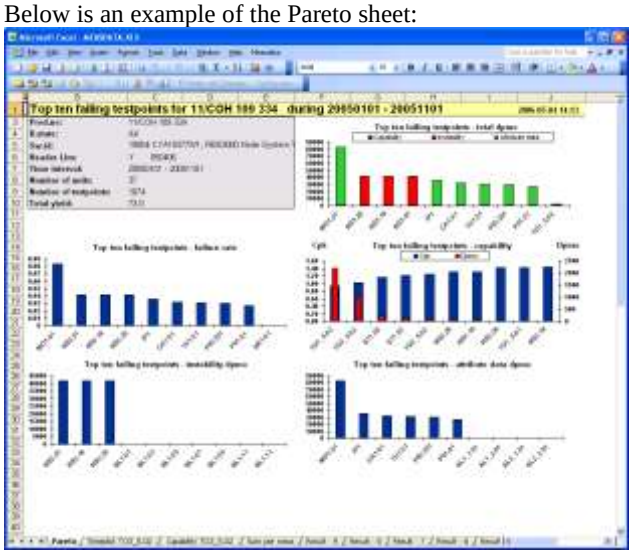
How to Create a Pareto Sheet

The summary/measure point sheet is activated.

To create a Pareto sheet:

1. Select Measdata/Create the Pareto sheet from the menu bar.

Below is an example of the Pareto sheet:



The Continuous R&R Sheet

The Measdata Continuous R&R sheet presents repeatability and reproducibility analyses of continuous production test data (running production, first tests of different units). The continuous R&R analyses require more than one test station to analyze data from and a minimum level of five tested units per test station (in

remaining cases, test station variation can only be estimated by Gauge R&R analyses).

The continuous R&R sheet is made for all test points in the summary/measure point sheet. The sheet can only be created if the summary sheet has been activated and the selection only contains values with test count of one. If your selection contains test counts greater than one you will get a warning:

Measdata
Testpoints with testcount > 1 are included in Sum per meas sheet. It is not possible to create the Continuous R&R sheet for this kind of selection!
OK

Important to consider when using continuous R&R is that this analysis method cannot separate products or operators from test stations. If the products tested in the different test stations are from different populations the analyses will point out those differences as differences in repeatability and/or reproducibility. Differences due to variation in operator behaviour running the different test stations will also be pointed out in the same way.

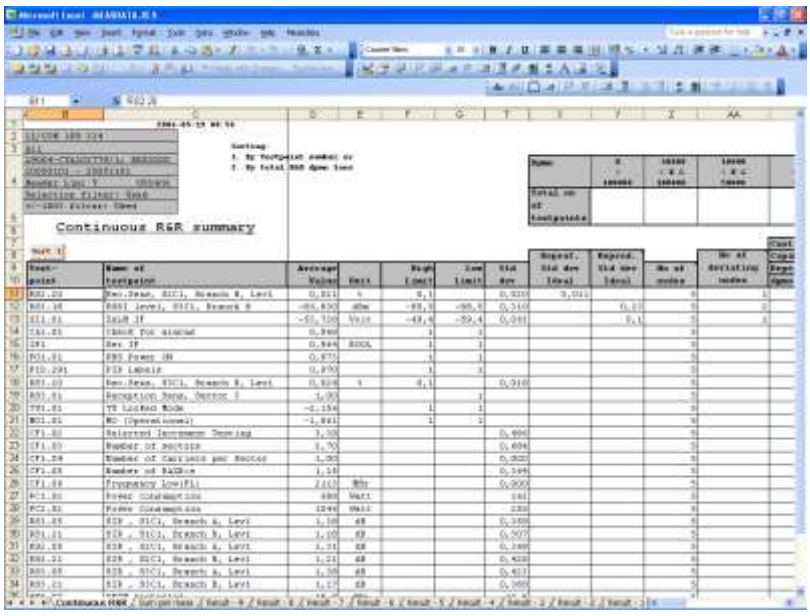
How to Create a Continuous R&R Sheet

To create a Continuous R&R sheet:

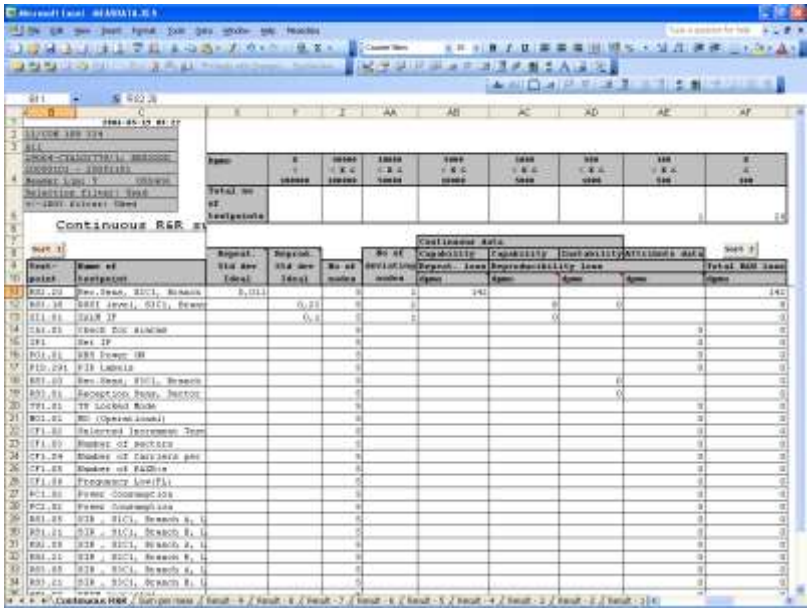
1. Select Measdata/Create the Continuous R&R sheet from the menu.

Testpoints in Continuous R&R sheet can be sorted either by testpoint or by total R&R DPMO loss.

Below is an example of the Continuous R&R sheet:



Example: To the right in the Continuous R&R sheet the following information appear:



Information found on this part of the Continuous R&R sheet:

- Repeatability Standard Deviation Ideal
- Reproducibility Standard Deviation Ideal
- No of nodes used in calculations
- No of deviating nodes found in analyses
- Capability repeatability DPMO loss
- Capability reproducibility DPMO loss
- Instability reproducibility DPMO loss
- Attribute reproducibility DPMO loss
- Total repeatability and reproducibility DPMO loss

Detailed explanation of the different columns, see Glossary.

The Continuous R&R Pareto Sheet

The Measdata continuous R&R Pareto sheet presents an overview of the result of the continuous repeatability and reproducibility analyses.

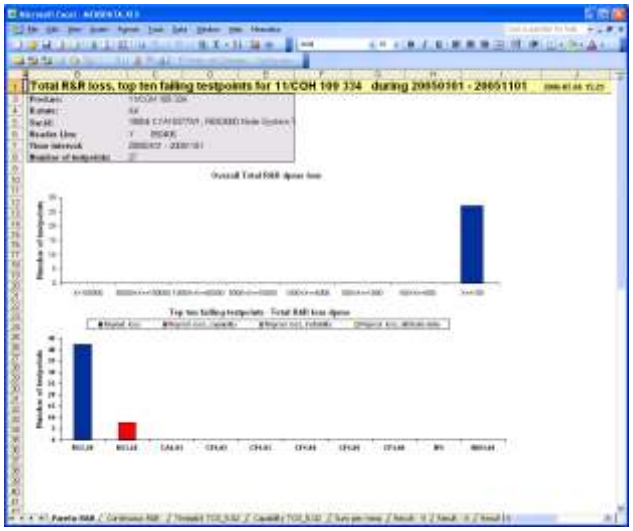
This sheet can only be created if the Continuous R&R sheet has been activated, and is created for all testpoints in that sheet.

How to Create a Continuous R&R Pareto Sheet

To create a continuous R&R Pareto sheet:

1. Select Measdata/Create the Continuous R&R Pareto sheet from the menu.

Below is an example of the Continuous R&R Pareto sheet:



There are two diagrams in the sheet. The first diagram, "Overall Total R&R DPMO loss", shows the overall total R&R DPMO loss for all testpoints in Continuous R&R sheet. The diagram is based upon the overall table on the right top of Continuous R&R sheet. The second diagram shows the top ten failing testpoints concerning total continuous R&R DPMO loss.

The Continuous R&R Testpoint Sheet

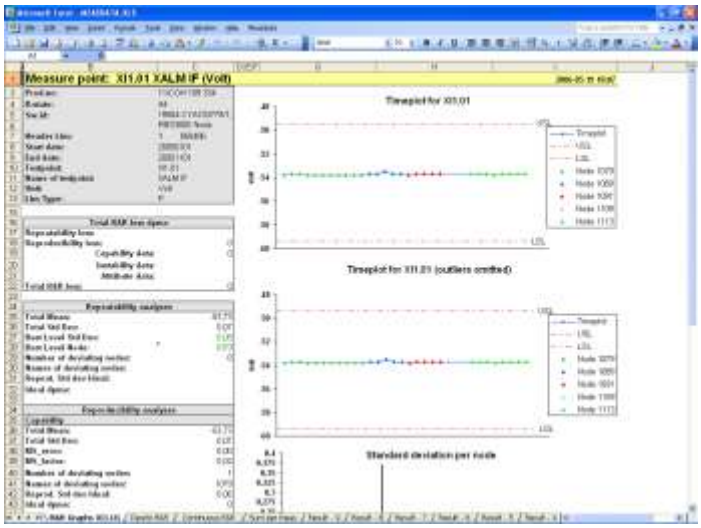
The Measdata continuous R&R testpoint sheet presents continuous repeatability and reproducibility analyses for a specific testpoint. This sheet can only be created if the Continuous R&R sheet has been activated, and is created for a specific testpoint in that sheet.

How to Create a Continuous R&R Testpoint Sheet

To create a continuous R&R testpoint sheet:

1. Click on a row in the **Continuous R&R** sheet
2. Select Measdata/Create the Continuous R&R testpoint sheet from the menu.

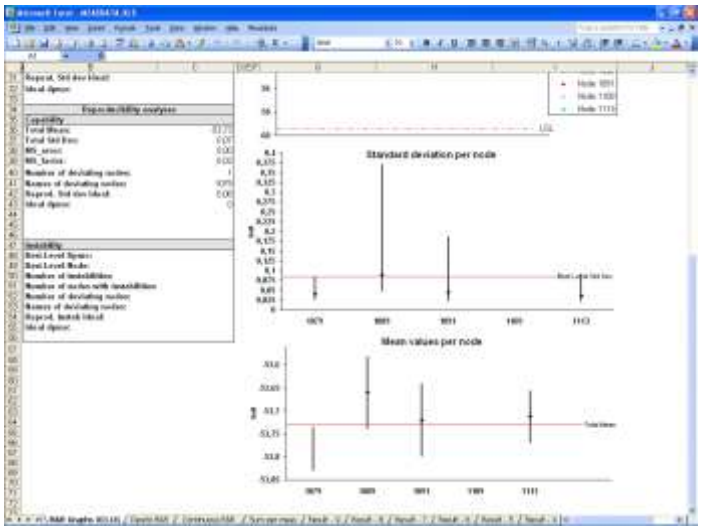
Below is an example of the Continuous R&R Testpoint sheet:



There are four different graphs in this sheet created for a specific testpoint. In the first two timeplot graphs, all individual measurements are grouped by test station/node name. This gives an overall picture of how the different nodes behave, both in their position (mean value) and the spread (standard deviation). The second

timeplot graph shows a better resolution since outliers have been removed. This graph is to be interpreted as data for “normal production”, and allows for a more thorough comparison between nodes.

The two last graphs show graphical comparisons between nodes with regard to their spread and position. The thin red line is calculated as the standard deviation best level (upper chart), and the total mean for all measurements (lower chart). The confidence intervals are set to standard level, 95%.



For further explanations of the graphs see Measdata Capability Report.

The Continuous R&R Teststation Sheet

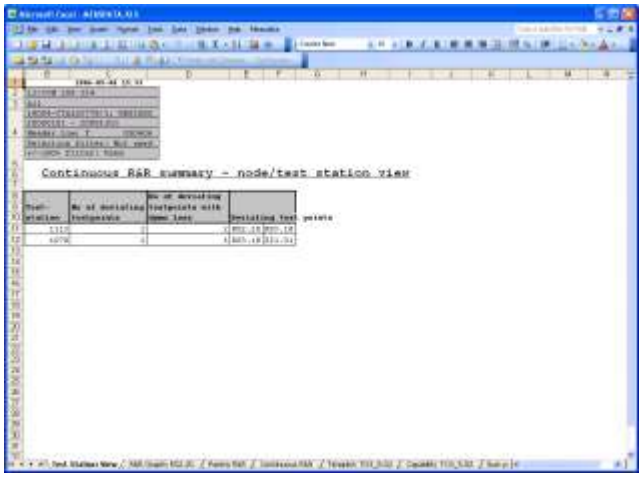
The Measdata continuous R&R teststation sheet presents a list of testpoints that are found deviating during the continuous R&R analyses. Deviating testpoints are listed per teststation. This sheet can only be created if the Continuous R&R sheet has been activated, and is created for all testpoints in that sheet.

How to Create a Continuous R&R Teststation Sheet

To create a continuous R&R teststation sheet:

1. Select Measdata/Create the Continuous R&R teststation sheet from the menu.

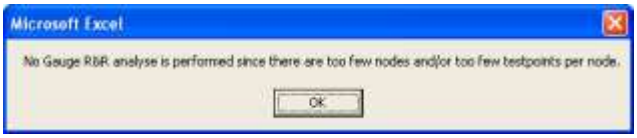
Below is an example of the Continuous R&R Teststation sheet:



The Gauge R&R Sheet

The Measdata Gauge R&R sheet presents Gauge R&R analyses for all testpoints in summary/measure point sheet. Performing Gauge R&R analyses requires repeated testing of same units in a planned experiment, for example five units to be measured in a randomized way four times each in three different test stations. Number of units and repetitions must be decided due to the situation and requirements. This requires repeated testing of same units in a planned experiment.

The Measdata Gauge R&R sheet can only be created if the summary sheet has been activated and the selection contains individuals tested several times on different test stations. If your selection doesn't contain correct data you will get a warning:



How to Create a Gauge R&R Sheet

To create a gauge R&R sheet:

1. Select Measdata/Create the Gauge R&R sheet from the menu.

Below is an example of the Gauge R&R sheet:

Testpoints in the Gauge R&R sheet can be sorted either by testpoint or by total Gauge R&R DPMO loss.

Example: To the right in the Gauge R&R sheet the following information appear.

Information found in the Gauge R&R sheet:

- No of nodes
- No of distinct categories
- Reproducibility divided into %Contribution, %Study variation, %Tolerance
- Parts divided into %Contribution, %Study variation, %Tolerance
- Interaction divided into %Contribution, %Study variation, %Tolerance
- Reproducibility divided into %Contribution, %Study variation, %Tolerance
- Total Gauge R&R divided into %Contribution, %Study variation, %Tolerance
- Product DPMO
- Total Gauge R&R DPMO loss

Detailed information of different columns, see Glossary.

The Gauge R&R Pareto Sheet

The Measdata Gauge R&R Pareto sheet presents overview graphs for the repeatability and reproducibility analyses performed in Gauge R&R sheet.

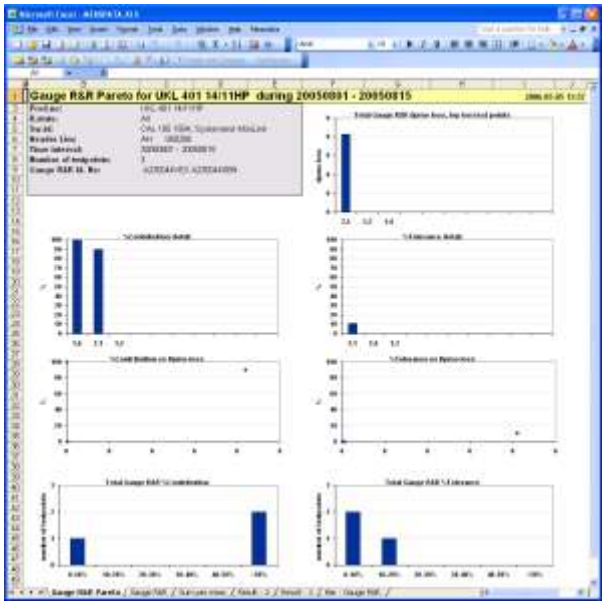
This sheet can only be created if the Gauge R&R sheet has been activated.

How to Create a Gauge R&R Pareto Sheet

To create a Gauge R&R Pareto sheet:

1. Select Measdata/Create the Gauge R&R Pareto sheet from the menu.

Below is an example of the Gauge R&R Pareto sheet:



For detailed information of the graphs, see Glossary Graphs.

The Gauge R&R Testpoint Sheet

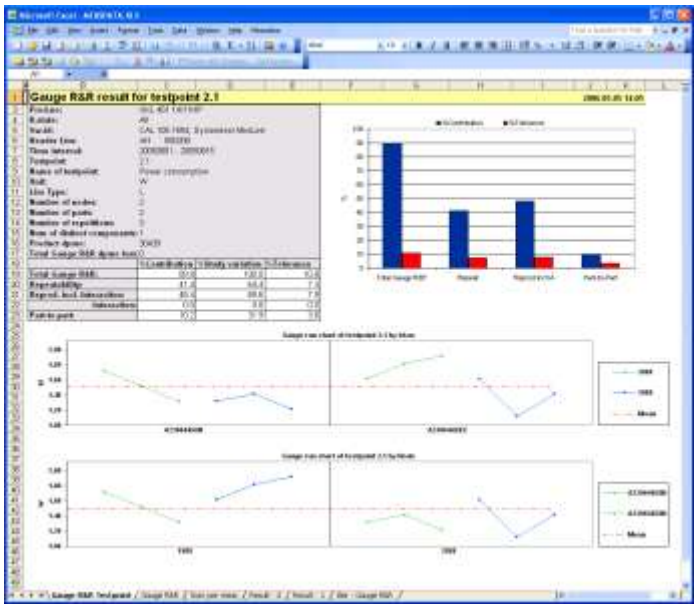
The Measdata Gauge R&R testpoint sheet presents Gauge repeatability and reproducibility analyses for a specific testpoint. This sheet can only be created if the Gauge R&R sheet has been activated.

How to Create a Gauge R&R Testpoint Sheet

To create a gauge R&R sheet:

1. Click on a row in the **Gauge R&R** sheet.
2. Select Measdata/Create the Gauge R&R testpoint sheet from the menu.

Below is an example of the Gauge R&R Testpoint sheet:



In the first graph, %Contribution and %Tolerance is plotted grouped by the categories Total Gauge R&R, Repeatability, Reproducibility and Part-to-part. %Contribution shows how much each category contributes to the overall observed

variability in all the measurements (per measurement point). %Tolerance shows how much of the total tolerance range a category is covering. A high value on %Contribution but low on %Tolerance reveals a poor system with no real yield problems.

The second graph is a run chart by Id.no, a summary chart with all measurements grouped by units (each frame), and by test station (each coloured series). This makes it easy to spot differences between/within test stations.

The third graph is a run chart by test station, a summary chart with all measurements grouped by test station/node (each frame), and by units (each coloured series). This makes it easy to spot differences between/within units.

The Instability Sheet

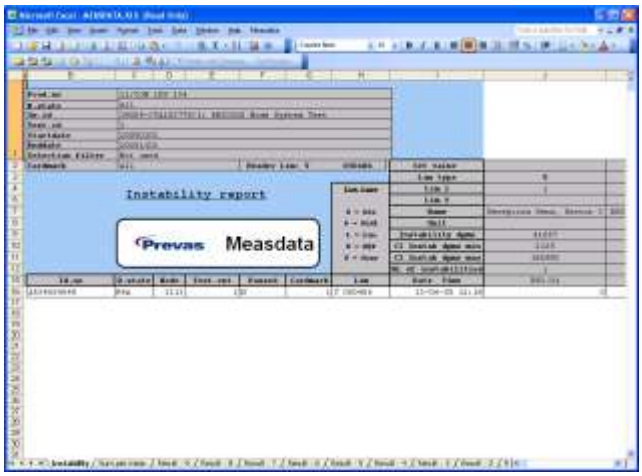
The Measdata instability sheet presents all values that are calculated as instabilities for all measurement points. All id numbers with instabilities found are presented in this sheet. This sheet can only be created if the summary sheet has been activated.

How to Create an Instability Sheet

To create an Instability sheet:

1. Select Measdata/Create the instability sheet from the menu.

Below is an example of the Instability sheet:



The Capability report

The Measdata capability report presents capability information for measurement points generated as an MS Word report. This report can only be created if the summary sheet has been activated.

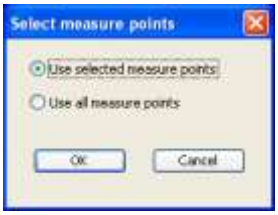
The Capability report contains an initial page with overall information and followed by a number of pages with test point specific information. A glossary is included in the Capability report with explanations of the test point specific information.

How to Create a Capability report

The summary/measure point sheet is activated.

To create a Capability report:

1. Select Measdata/Create the capability report from the menu bar.
2. Select one alternative from the measurement point selection window.



N.B. When the alternative **Use selected measurement points** is selected, the summary information on the initial page is affected. The following text is added on the initial page to indicate the limitation: "Only a selected number of measurement points in the report".

3. Enter information in the Create Capability report form. This dialog box shows the selected product number and the period of time you want the report to cover.

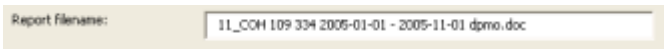
    a. Select **Testpoint sort order**, by total DPMO is default.

    b. Select **Number of testpoints in report.** The number of measurement points that will be written to the report.

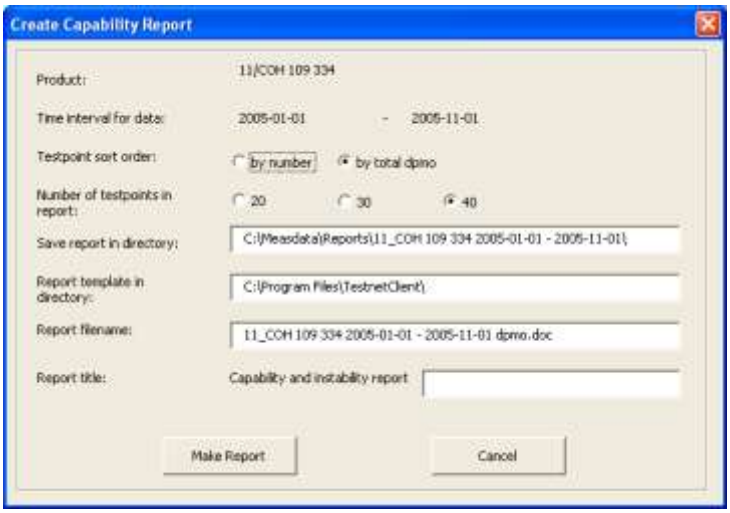
    c. Enter **Save report in directory**, initial path set to C:\Measdata\Reports. The report directory is created according to \[*root directory*]\[*Product number from date – Until date*]\

    d. Enter **Report template in directory**, default path is set. The MS Word template used to create the report is named *caprepwordtemplate.doc*

    e. Enter **Report file name,** default name is given a combination of product number and date interval for the report.

    f. Enter report title.

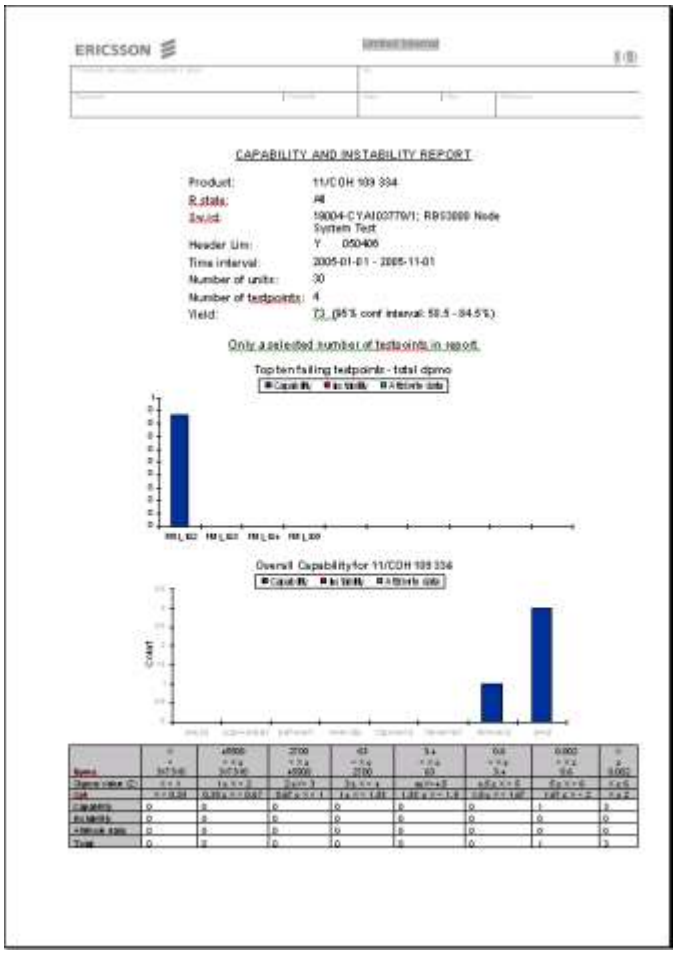
    g. Click on the button

    to generate the Capability report.

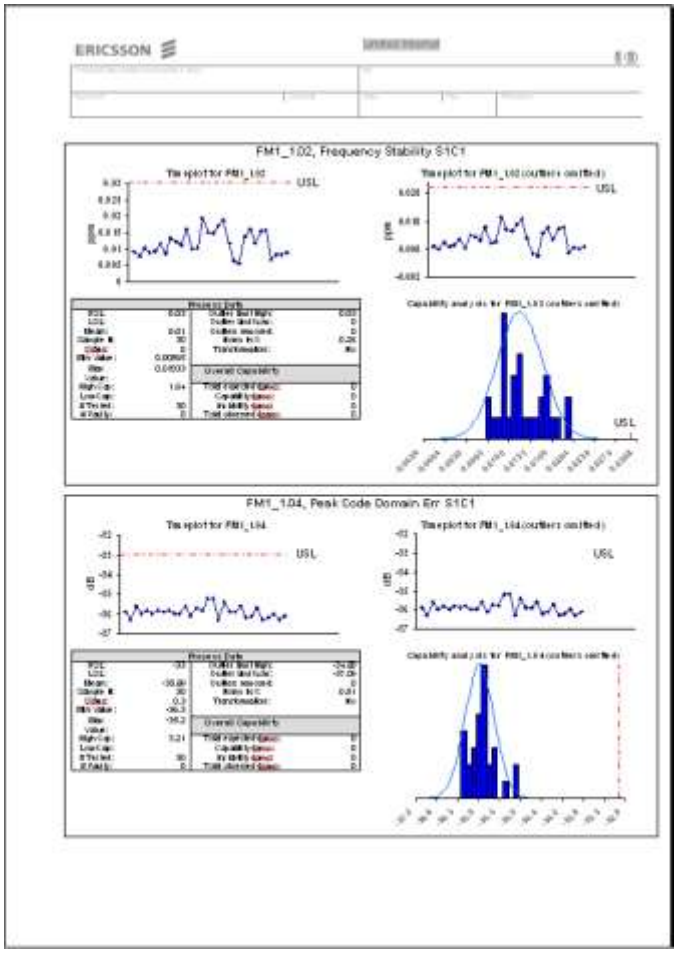
The initial page in the capability report contains the following information:

Ericsson header information and logotype, product information, information about how many test points that are analyzed in the report, a Pareto graph with the most frequent failing measurement points concerning total DPMO, an overall capability graph showing the measurement points capability value and a table with calculated base data for the overall capability graph.

This is an example of the first page:



4. The second page contains help information; it explains what kind of information is presented for each test point. Page three and four holds a glossary with information about the terms used in Measdata. The following pages hold the measurement point information. The example below shows one page with information about two measurement points:



Continuous R&R Report

The Measdata continuous R&R report presents continuous repeatability and reproducibility information for selected testpoints in an MS Word report. This report can only be created if the continuous R&R sheet has been activated.

The Continuous R&R report contains an initial page with overall information followed by a number of pages with test point specific information. A glossary is included in the Continuous R&R report with explanations of the test point specific information.

How to Create a Continuous R&R report

The continuous R&R sheet is activated.

To create a Continuous R&R report:

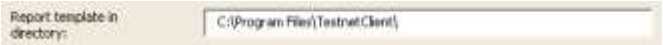
1. Select Measdata/Create the continuous R&R report from the menu bar.
2. Enter information in the Create Continuous R&R report form. This dialog box shows the selected product number and the period of time you want the report to cover.
    a. Select **Testpoint sort order**, by total DPMO is default.

    b. Select **Number of testpoints in report.** The number of measurement points that will be written to the report.
    c. Select **Testpoint selection.** By default **testpoints with total DPMO > 100** is checked, indicating that only

testpoints with total DPMO > 100 will be included in report. Uncheck this if all testpoints shall be included in report.

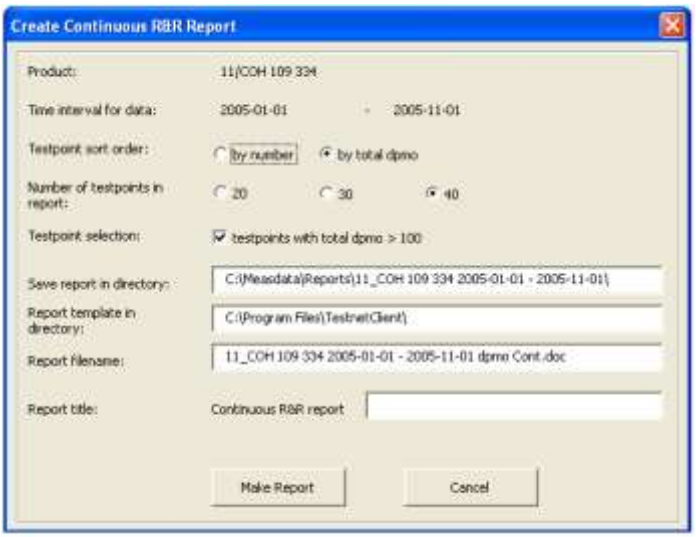
d. Enter **Save report in directory**, initial path set to C:\Measdata\Reports. The report directory is created according to \[*root directory*]\[*Product number from date – Until date*]\

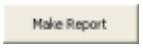
e. Enter **Report template in directory**, default path is. The MS Word template used to create the report is named *contwordtemplate.doc*



f. Enter **Report filename,** default name is set.

g. Enter report title.



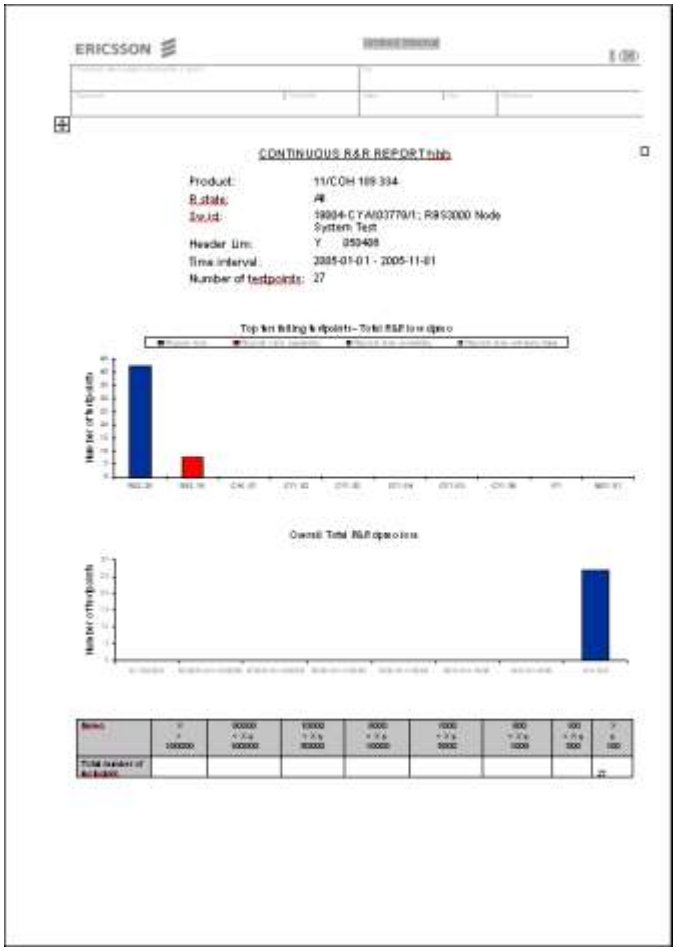
h. Click on the button 

to generate the Continuous R&R report.

The initial page in the continuous R&R report contains the following information:

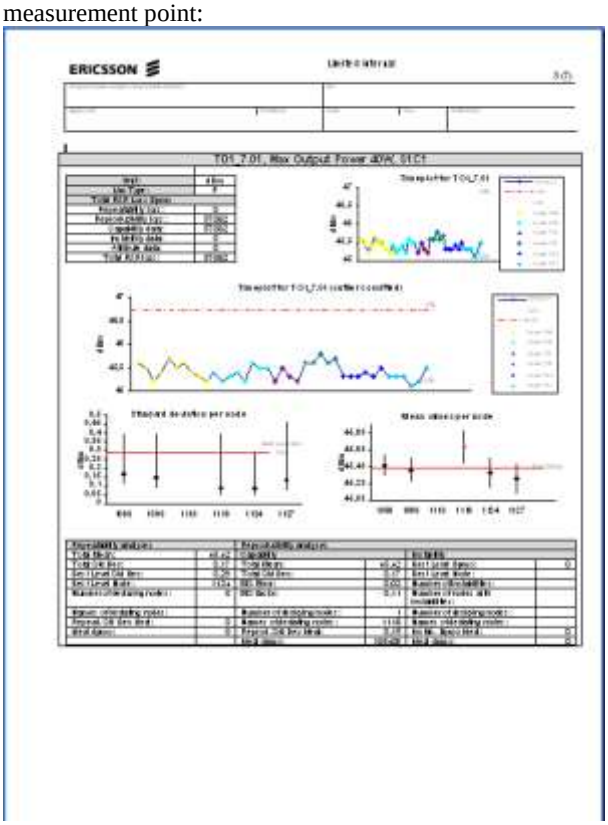
Ericsson header information and logotype, product information, information about how many test points that are analyzed in the report and shows two overview graphs from the continuous R&R analyses.

This is an example of the first page:



7. The second page contains help information, it explains what kind of information is presented for each test point. The following pages hold the measurement point information. The last pages in the report hold a glossary with information about the terms used in Measdata. The example below shows one page with information about one

measurement point:



Gauge R&R Report

The Measdata Gauge R&R report presents Gauge repeatability and reproducibility information for selected testpoints in an MS Word report. This report can only be created if the Gauge R&R sheet has been activated.

The Gauge R&R report contains an initial page with overall information followed by a number of pages with test point specific information. A glossary is included at the end of the Gauge R&R report with explanations of the test point specific information.

How to Create a Gauge R&R report

The Gauge R&R sheet is activated.

To create a Continuous R&R report:

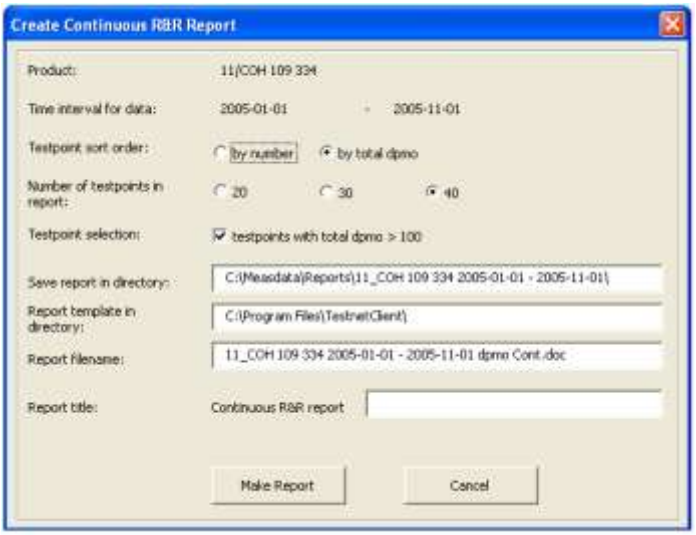
1. Select Measdata/Create the continuous R&R report from the menu bar.
2. Enter information in the Create Continuous R&R report form. This dialog box shows the selected product number and the period of time you want the report to cover.
    a. Select **Testpoint sort order**, by total DPMO is default.

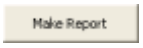
    b. Select **Number of testpoints in report.** The number of measurement points that will be written to the report.
    c. Enter **Save report in directory**, initial path set to C:\Measdata\Reports. The report directory is created according to \[*root directory*]\[*Product number from date – Until date*]\

d. Enter **Report template in directory**, default path is set. The MS Word template used to create the report is named *gaugewordtemplate.doc*

e. Enter **Report filename,** default name is set.

f. Enter report title.



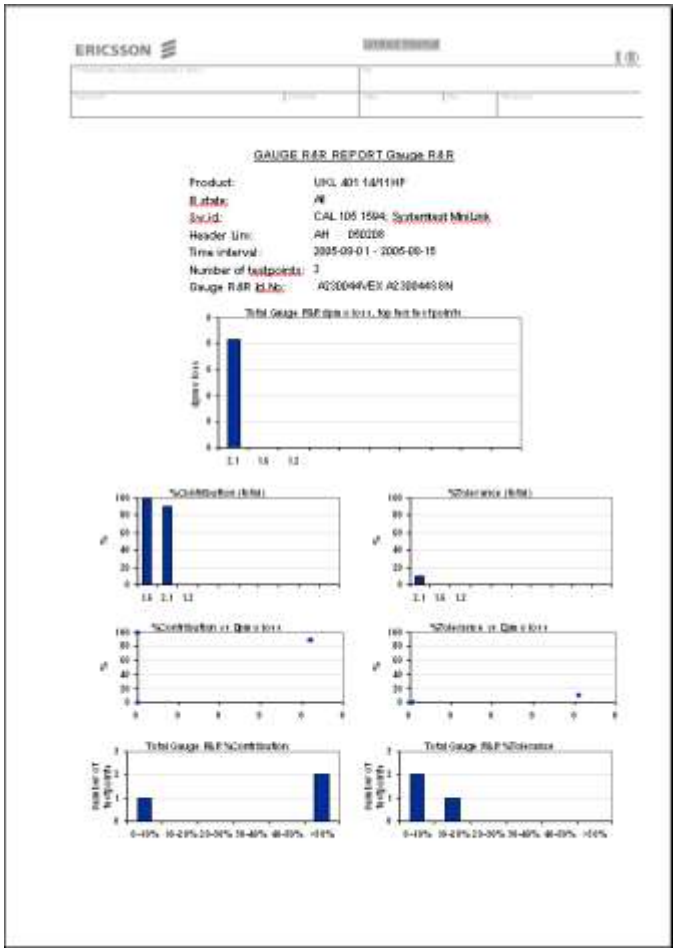
g. Click on the button 

to generate the Continuous R&R report.

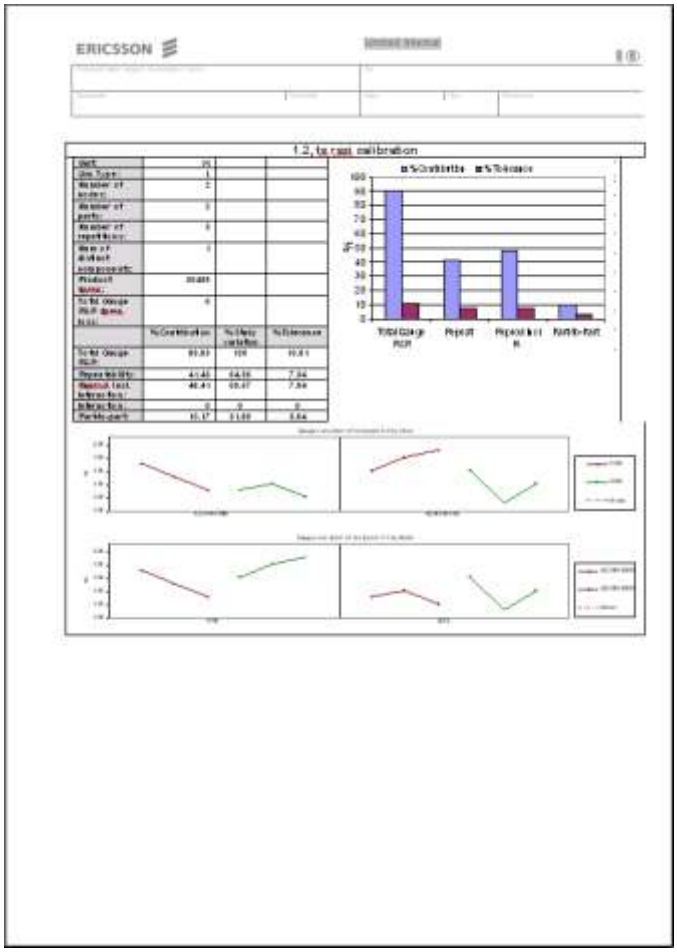
The initial page in the gauge R&R report contains the following information:

Ericsson header information and logotype, product information, information about how many test points that are analyzed in the report, a Pareto graph with the most frequent failing measurement points concerning total R&R DPMO, a overall R&R DPMO graph showing the measurement points R&R DPMO value and a table with calculated base data for the overall R&R DPMO graph.

This is an example of the first page:

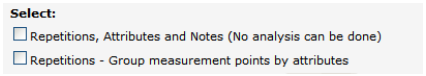


The second page contains help information; it explains what kind of information is presented for each test point. The following pages hold the measurement point information. The last pages hold a glossary with information about the terms used in Measdata. The example below shows one page with information about one measurement point:

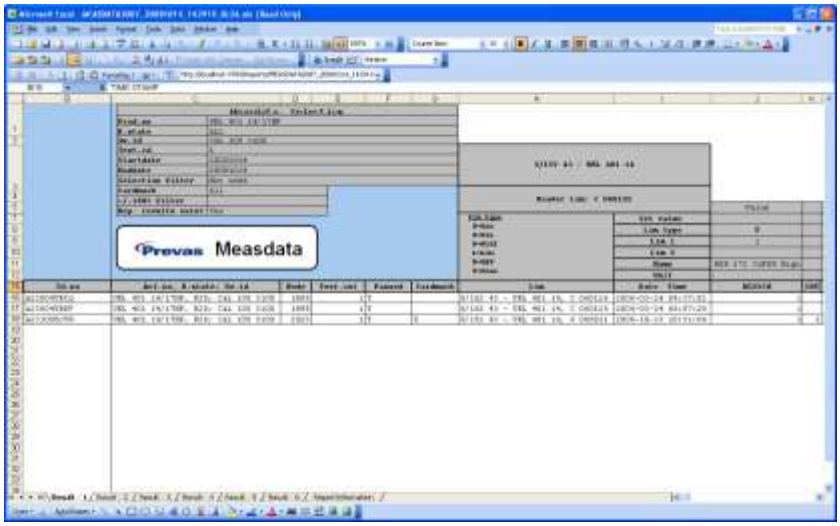


Repeatable measurements

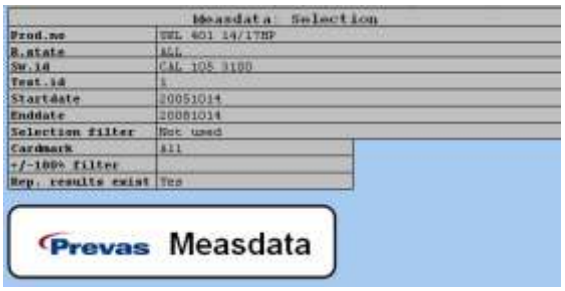
It is possible to view repeatable measurements in Measdata. This is possible if you have checked either of the “Repetitions, attributes and notes” or the “Repetitions – Group measurement points by attributes” checkboxes at the bottom of the search page.



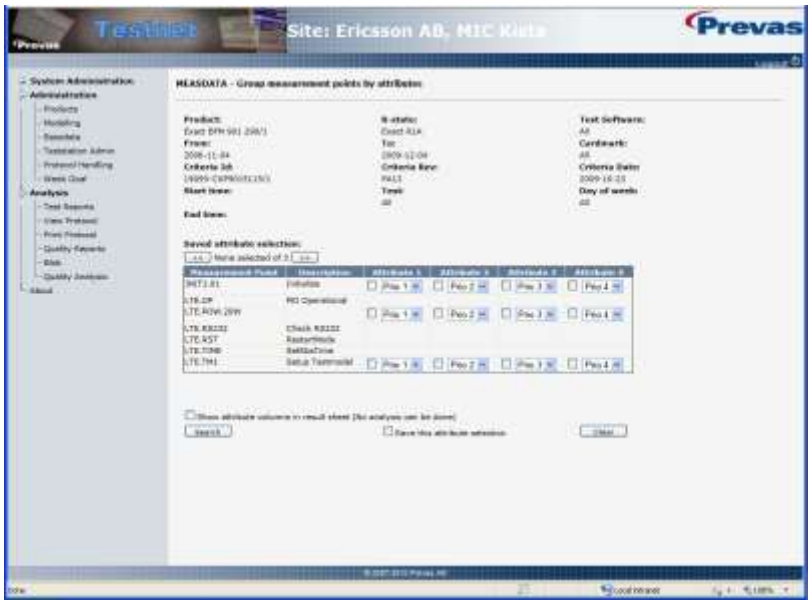
If the “Repetitions, attributes and notes” checkbox is checked, testpoints with repeatable measurements are presented together with testpoints without repeatable measurements in a sheet looking almost the same as the usual Measdata result sheet. But there are some new columns included in the result sheet for testpoints with repeatable measurements: CNT, TIME STAMP, ATT1, ATT2, ATT3 and ATT4. If the points have notes an additional column is added: MP_NOTE. Note that none of the usual Measdata analysis functions are available from this Measdata result sheet.



Information about whether repeatable measurements exist or not are always present in the Measdata result sheet, in the information textbox “Rep. results exist” as Yes or No. This information is also included in MS Word reports.



If the “Repetitions – Group measurement points by attributes” checkbox is checked at bottom of search page, the page “Group measurement points by attributes” is loaded.



In this page all measurement points meeting search conditions and having repetitive measurement values registered, are listed. From this page it is possible to create a Measdata result sheet with measurement values grouped by attributes.

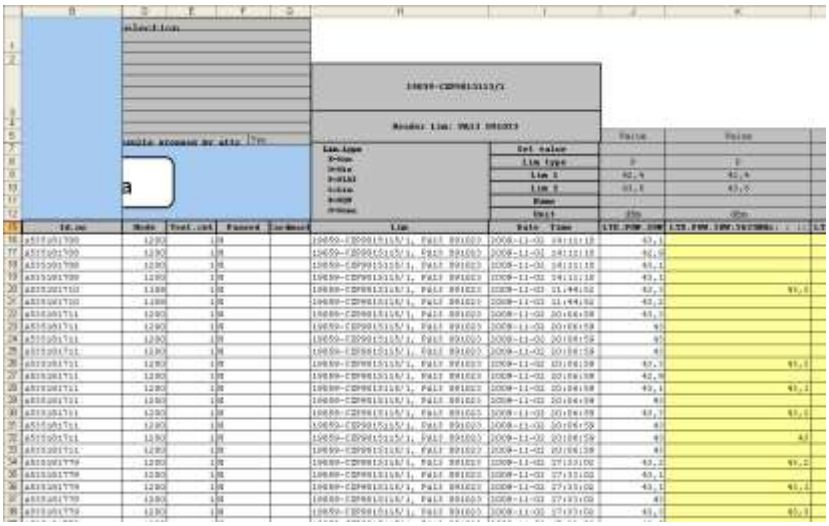
You select which attributes to group measurement values by for respective measurement point, by checking desired attribute checkboxes.

If you double-click on a specific measurement point row in the “Group measurement points by attributes” page, a detail information page is displayed.

Measurement point attributes detail page - Windows Internet Explorer
Measurement Point Attribute Details
Measurement Point: INIT1.01

The detail information page contains a presentation of distinct attribute values for the specific measurement point and the number of measurement values for respective attribute value. By examining the detail information, user may decide what attribute selection to group measurement point by in the “Group measurement points by attributes” page.

Pressing the **Search** button in the “Group measurement points by attributes” page will create a Measdata result file with measurement values grouped by given attribute selection for respective measurement point.



Default syntax of the measurement point names created when attribute selection is used is like

<m_id>:<attr1>:<attr2>:<attr3>:<attr4>:

where

<m_id> is original measurement point name

<attr1> is value of attribute1

<attr2> is value of attribute2

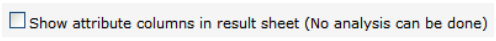
<attr3> is value of attribute3

<attr4> is value of attribute4

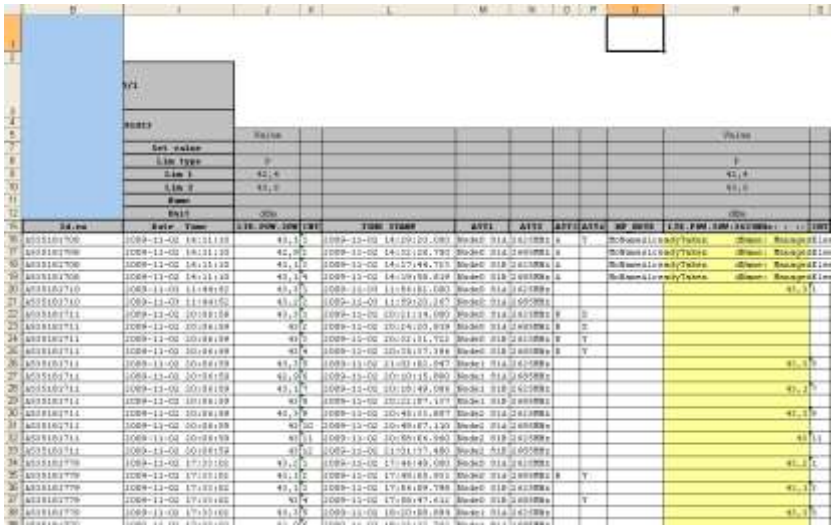
It is possible to change the default syntax of the name of the measurement points by changing the priority order of the attributes. To change the default priority order, change selected priority (Prio 1/Prio 2/Prio 3/Prio 4) for respective attribute in the "Group measurement points by attributes" page.

If, for example, attribute1 has priority 2, attribute2 has priority 3, attribute3 has priority 1 and attribute4 has priority 4, the new measurement point name syntax will be like <m_id>:<attr3>:<attr1>:<attr2>:<attr4>:.

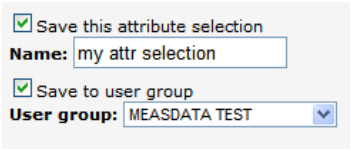
If the checkbox "Show attribute columns in result sheet" is checked at bottom of the "Group measurement points by attributes" page, a measdata result file is created with attribute columns (CNT, TIME STAMP, ATT1, ATT2, ATT3, ATT4, MP_NOTE) visible.



This file look similar to the one created if user checks the "Repetitions, Attributes and Notes" checkbox directly in the Measdata search page, but measurement values are now grouped by your attribute selection. Note that none of the usual Measdata analysis functions are available from this Measdata result sheet



Your search conditions and attribute selection is possible to save for later use in the "Group measurement points by attributes" page. You may dedicate the saved search to yourself or to a specific user group you are member of, and it is possible to load a saved search.



When user checks the "Save this attribute selection" checkbox, a name field for the selection that is to be saved turns visible together with a checkbox "Save to user group". If the "Save to user group" checkbox is checked, a dropdownlist turns visible

where you can select specific user group to dedicate selection to. All saved searches dedicated to a specific user is loaded into page together with all saved selections that is dedicated to user groups that you are member of.

Selected attribute combination is saved together with specific search conditions (product, rstate, software, cardmark, criteria, filtering information etc).

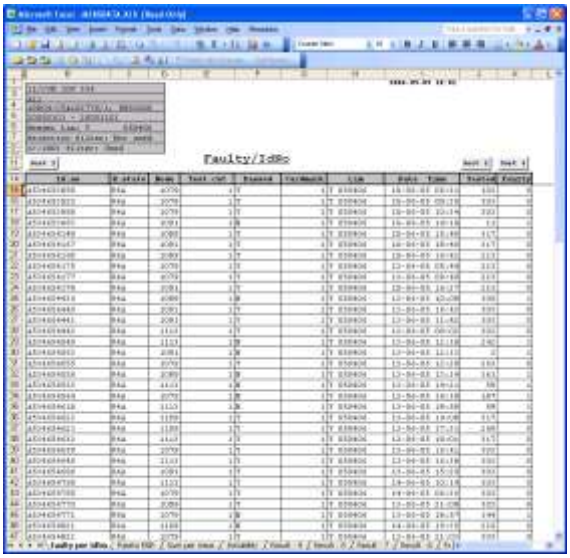
Only saved search conditions that correspond to search conditions used in page, are possible to select in page.

Faulty/IdNo Sheet

In the Measdata faulty/idno sheet it is possible to see the number of faulty measurement points per individuals.

How to Create a Faulty/IdNo Sheet

1. Select Measdata/Create the faulty/idno sheet from the menu bar. Below is an example of the sheet that will appear:



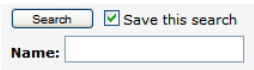
You can sort the **Faulty/IdNo** table either by the **Id.no**, **Tested** or **Faulty** columns.

Save a Search

In Measdata it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain products. You can specify these products in a search, and each time you need reports for these products, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in the section "Create a Measdata Report". When you have filled in all criteria; select **Save this search** check box:

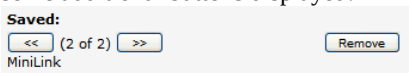


Supply a name for your search so you can load it later.

2. When you click the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:



2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on Search.

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on Remove.

TQReport

Description

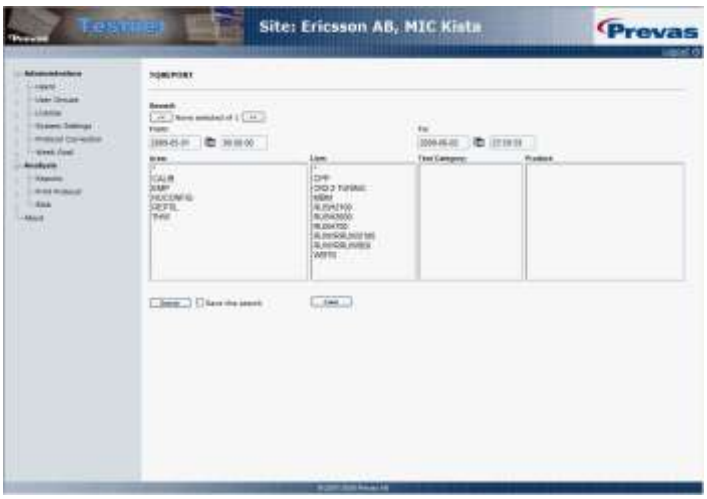
The TQReport is an application for visualising information about tests and repairs that have been carried out over a specific time period. Data is displayed both from Testnet and from Quality database

The information contained in the reports is obtained from the Testnet database.

Create a TQReport Report

This is how you create a TQReport report:

1. Click on TQREPORT in the Analysis - Reports window, and then on Select.
   The following page will appear.

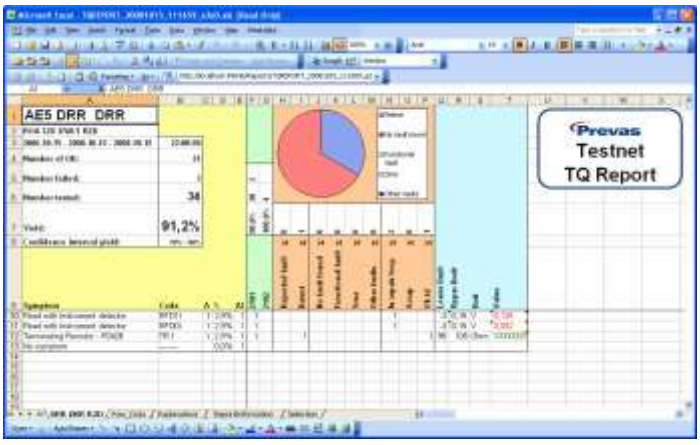


2. Enter the period of time you want the report to cover. The year should be entered first, followed by month and then day (YYYY-MM-DD). For example, the 23rd of March, 2008 will be entered like this: 2008-03-23. You can also click the calendar button and get help with selecting your date.
3. Select one or multiple **Area** by clicking on the items in the list. If you want to select all, click the *. Then the list of lines is filled with appropriate data.
4. Select one or multiple **Line** by clicking on the items in the list. If you want to select all, click the *. Then the list of test categories is filled with appropriate data.

5. Select one or multiple **Test Category** by clicking on the items in the list. If you want to select all, click the *. Then the list of products is filled with appropriate data.
6. Select one or multiple **Product** by clicking on the items in the list. If you want to select all, click the *.
8. Click on Search.

When the report is created a new dialog box is opened where the user can select settings for creating report sheets.

The search result is displayed according to the selections in one ore multiple sheets depending on the data.



Yield Report Sheet

The TQReport result sheet information is grouped together by using different colours. The different areas are described in the following table:

Yield Information (yellow)	Name of the test place and name of the product. These are from t05_config.xls where they are mapped on product number of test and product. Start date in search-End date in search-Last date in interval for yield presentation. Number of approved, failed and total number of first time tests.

	Yield calculated on number of approved first time tests divided with the total number of first time tests. Confidence interval yield calculated on 95% confidence. Symptom - the measurement point's description sent with test record from test place. If data is missing "No symptom" is displayed. Code - the measurement point's code sent with test record from test place. If data is missing "--" is displayed. A - Number of failed first time tests. % - Number of failed first time tests in regards to the number of first time tests. AI - Number of faulty individuals regardless of first time tests or not.
Test Place Information (green)	Number of failed and total number of first time tests on this test place. The yield for this test place. Calculated on number of approved first time tests for this test place divided by total number of first time tests for this test place. Test place number.
Repair Loop Information (orange)	Here successful actions on the fault from test generation 1. If other generation was chosen the actions connected to that is displayed. Successful action is the inputs that get approved in next test or approved in later tests without the symptom reoccurring in later generations. Entered faults - Number of failed individuals in first time tests that have successful action. Retest - Number of individuals that have no entered action and the unit has been approved. No fault found - Number of individuals where fault code for “No fault found” has been entered in troubleshoot mode. Functional fault - Number of individuals where fault code for "Functional fault" have been entered in troubleshoot. Sma - Number of individuals where fault code that belongs to "sma" fault have been entered in troubleshoot. The fault codes that belong to sma faults are defined in configuration file. Positions can be given for certain products that not will be counted as sma faults. Other faults - Number of individuals where other fault codes have been entered in troubleshoot. In repair loop -Number of the failed individuals that still are in repair loop. That is all individuals not passed in test. Scrap - Number of scrapped units. OK id - Number of failed individuals passed in test. The pie chart displays the distribution of faults for the failed units.
Measurement Value Information (blue)	Limits, unit and value for measurement point from test records Red = failed unit not reported by troubleshoot.

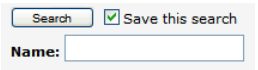
	Blue = failed unit reported by troubleshoot Green = approved unit not reported by troubleshoot Green = approved unit reported by troubleshoot In comment for measurement value is this information displayed: Id number, Test generation, Test date and time, Approved test, Test place, Fault symptom, Measurement value, measurement value for next test, Fault description and Comment from troubleshooter.

Save a Search

In TQReport it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area, line and test category. You can specify these criteria in a search, and each time you need reports for these data, just use the saved search.

How to Save a Search

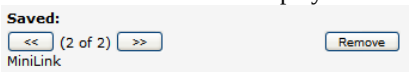
1. Select the search criteria you want just as in the section "Create a TQReport Report". When you have filled in all criteria select the **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on .

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on .

Weekdata

Description

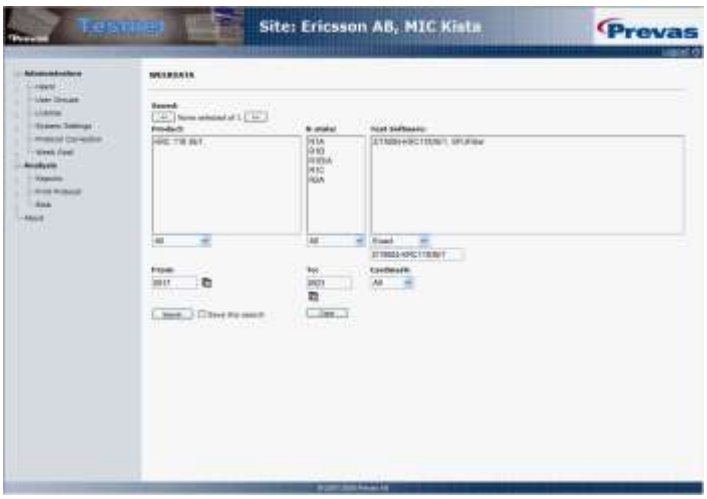
Weekdata is an application for visualising information about tests that have been carried out on a product over a calendar week period. The information gained by using Weekdata can be used to improve quality.

The information contained in the reports is obtained from the Testnet database.

Create a Weekdata Report

This is how you create a Weekdata report:

1. Click on WEEKDATA in the Analysis - Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for a **Product**. If you click in the list of available products the selected product will appear in the product number field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the product number, for example ROA. You can also let the product combo box display the option **"All"** and instead limit the search in other ways.
3. The **R-state** search works just as for product.
4. Select the **Test Software** if you want to limit your search on the software just as for product and R-state.
5. Enter the period of time you want the report to cover. The year should be entered first with two digits, followed by week number. For

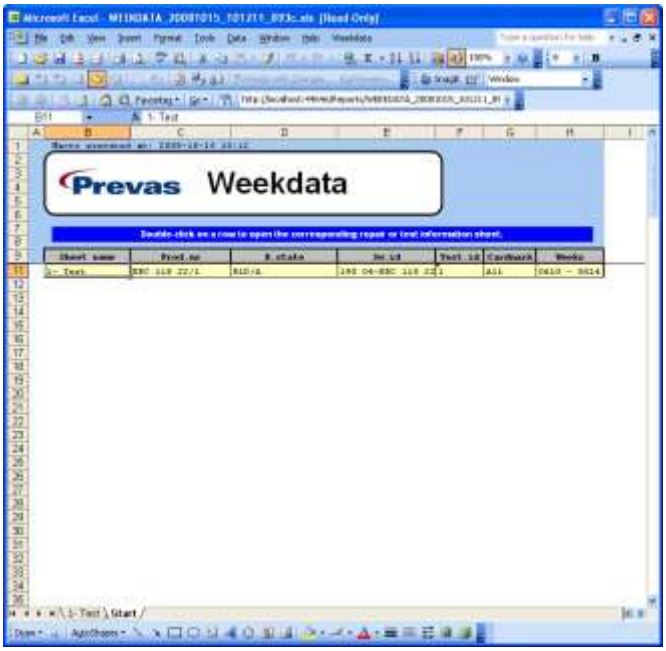
example, week 23, 2008 will be entered like this: 0823. You can also click the calendar button and get help with selecting your week.

6. Select whether the search criteria should include all cardmarks (**All**), exclude cardmarks (**Without**) or include a specific cardmark (**Specific**).

   Note: If you choose **Specific** you have to enter a list of maximum 40 cardmarks, for example ABX1 will include cardmark A, B, X and 1 in the search.

7. Click on Search.

When the selection is completed, the spreadsheet will display the search result in an indexed list.



By double-clicking on a row in the list, a corresponding result sheet will appear.

To return to the start sheet from the **Test Information** sheet, select Weekdata/Back to start sheet, from the menu bar.

Test Information Sheet

Below is an example of a **Test Information** sheet:

The test information sheet is made up of one graph and three tables.

Test Information Graph

The test information graph consists of the following:

- Fault rate with confidence interval based on week information.
- Four weeks average curve.
- Target line.

The graph is always based on a ten-week period from the selected end week in the search criteria.

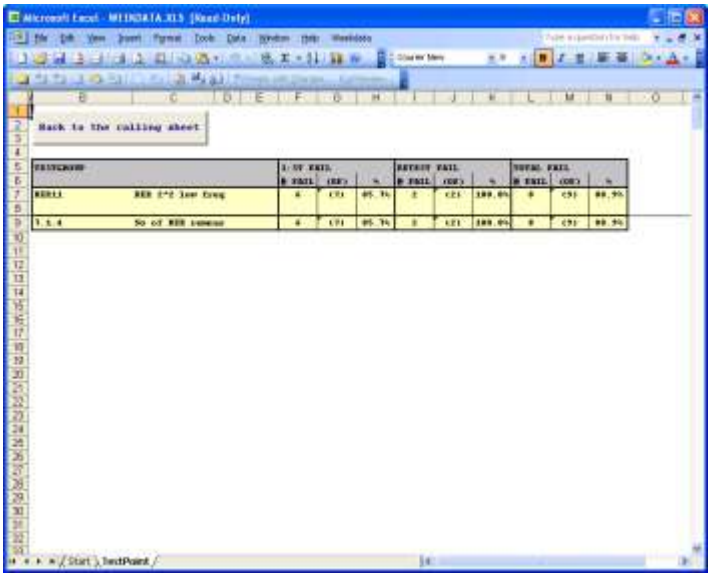
By clicking on the radio buttons you can choose whether to show or hide curves on the graph. You can also scale the graph between 10 and 100 percent in steps of 10 percent by changing the drop-down box.

Test Information Tables

The tables show the following:

- Information from the graph.
- A summary (as a percentage) of the failure rate.
- The failed test groups. These are shown in a Pareto list, which can be sorted in three different ways.
- You can enter the order of the test groups to reflect the actual test sequence. Enter the order of your choice in the **Test Ord**. column and then select the **Show relative** radio button. The failure rate will be calculated relative to that order and the number of tests performed.

If you double-click on a row in the **Test group** column, the **Test point** sheet will appear:



- To return to the calling sheet click on

Format sheet for printout

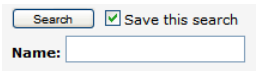
It is possible to format the current sheet to fit the A4 paper on printouts. It also removes radio buttons etc in the test sheets. Select Weekdata/Adjust format to A4 printout from the menu bar.

Save a Search

In Weekdata it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain products. You can specify these products in a search, and each time you need reports for these products, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Weekdata Report. When you have filled in all criteria select **Save this search** check box:

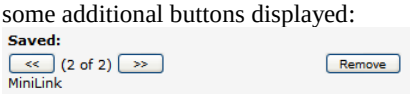
   Supply a name for your search so you can load it later.

2. When you click the search is saved and can be loaded later.

3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.

3. Click on .

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.

2. Click on .

Weekdata_Summary

Description

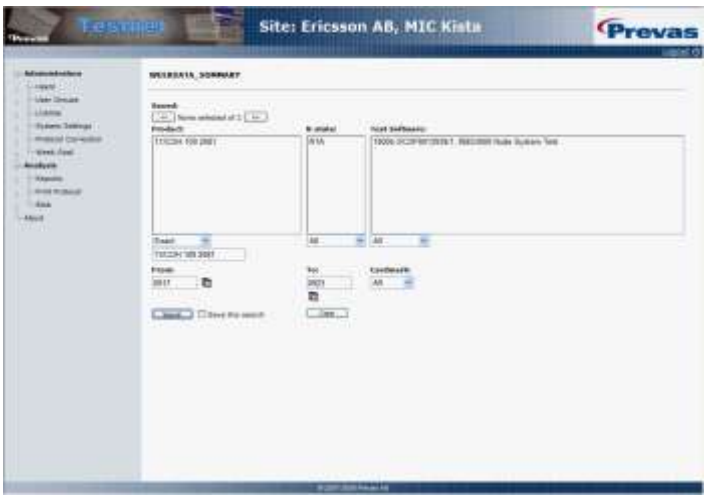
Weekdata_Summary is an application for visualising information about tests that have been carried out on a product over a calendar week period. The information gained by using Weekdata_Summary can be used to improve quality.

The information contained in the reports is obtained from the Testnet database.

Create a Weekdata_Summary Report

This is how you create a Weekdata_Summary report:

1. Click on WEEKDATA_SUMMARY in the Analysis - Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for a **Product**. If you click in the list of available products the selected product will appear in the product number field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the product number, for example ROA. You can also let the product combo display the option **"All"** and instead limit the search in other ways.
3. The **R-state** search works just as for product.
4. Select the **Test Software** if you want to limit your search on the software just as for product and R-state.
5. Enter the period of time you want the report to cover. The year should be entered first with two digits, followed by week number. For

example, week 23, 2008 will be entered like this: 0823. You can also click the calendar button and get help with selecting your week.

6. Select whether the search criteria should include all cardmarks (**All**), exclude cardmarks (**Without**) or include a specific cardmark (**Specific**).

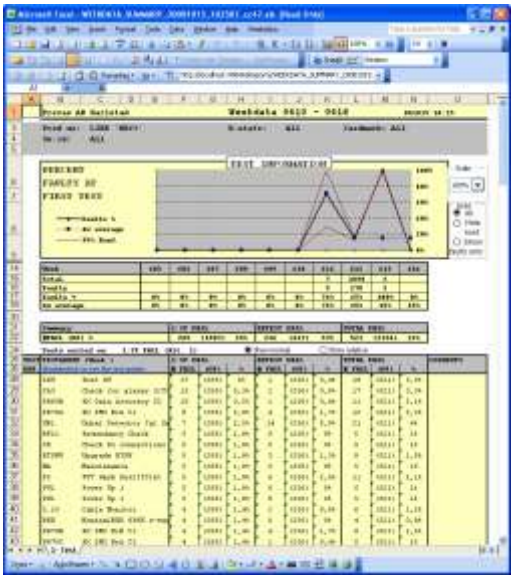
   Note: If you choose **Specific** you have to enter a list of maximum 40 cardmarks, for example ABX1 will include cardmark A, B, X and 1 in the search.

7. Click on Search.

When the selection is completed, the spreadsheet will display the search result.

Test Information Sheet

Below is an example of a **Test Information** sheet:



The test information sheet is made up of one graph and three tables.

Test Information Graph

The test information graph consists of the following:

- Fault rate with confidence interval based on week information.
- Four weeks average curve.
- Target line.

The graph is always based on a ten-week period from the selected end week in the search criteria.

By clicking on the radio buttons you can choose whether to show or hide curves on the graph. You can also scale the graph between 10 and 100 percent in steps of 10 percent by changing the drop-down box.

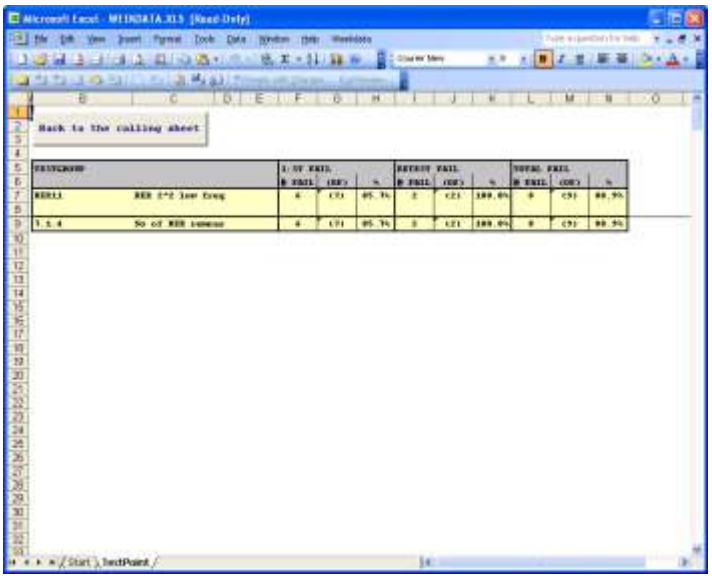
Test Information Tables

The tables show the following:

- Information from the graph.
- A summary (as a percentage) of the failure rate.
- The failed test groups. These are shown in a Pareto list, which can be sorted in three different ways.

- You can enter the order of the test groups to reflect the actual test sequence. Enter the order of your choice in the **Test Ord**. column and then select the **Show relative** radio button. The failure rate will be calculated relative to that order and the number of tests performed.

If you double-click on a row in the **Test group** column, the **Test point** sheet will appear:



- To return to the calling sheet click on

Format sheet for printout

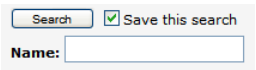
It is possible to format the current sheet to fit the A4 paper on printouts. It also removes radio buttons etc in the test sheets. Select Weekdata/Adjust format to A4 printout from the menu bar.

Save a Search

In Weekdata_Summary it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain products. You can specify these products in a search, and each time you need reports for these products, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Weekdata_Summary Report. When you have filled in all criteria select **Save this search** check box:

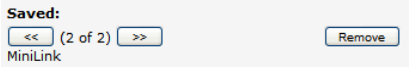
   

   Supply a name for your search so you can load it later.
2. When you click

the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on Search.

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on Remove.

View Protocol

Description

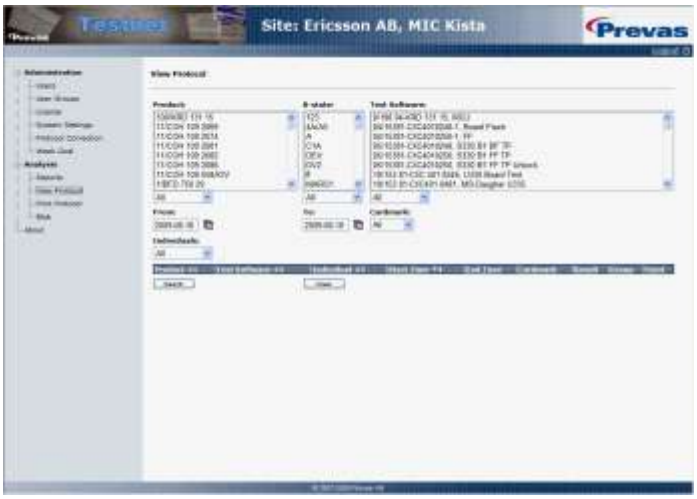
The View Protocol tool enables you to search for and view test protocols stored in Testnet database.

How to View Protocols

This is how you search for protocols to view:

1. Select menu option View Protocol.

The following page will appear.



2. There are three ways you can search for a Product. If you click in the list of available products the selected product will appear in the product number field and the combo box will display “Exact”. You can also select “Starting with” in the combo box and supply the beginning of the product number, for example ROA. You can also let the product combo display the option “All“ and instead limit the search in other ways.
3. The R-state search works just as for product.
4. Select the Test Software if you want to limit your search on the software just as for product and R-state.
5. Enter the period of time you want the blob. The year should be entered first, followed by month and then day (YYYY-MM-DD). For example,

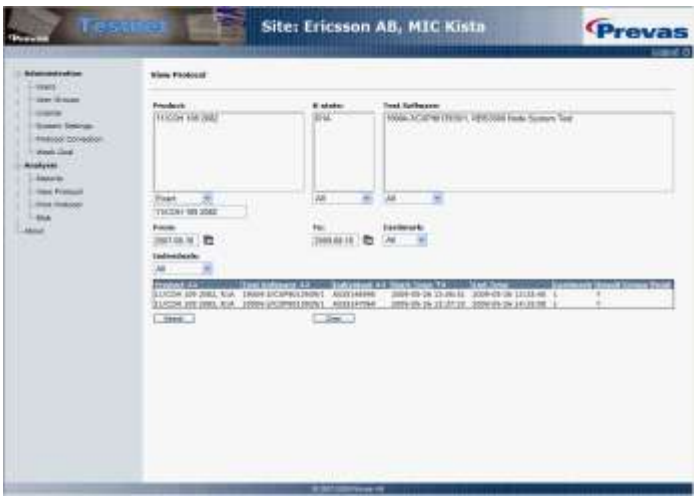
the 23rd of March, 2008 will be entered like this: 2008-03-23. You can also click the calendar button and get help with selecting your date.

6. Select whether the search criteria should include all cardmarks (**All**), exclude cardmarks (**Without**) or include a specific cardmark (**Specific**).

   Note: If you choose **Specific** you have to enter a list of maximum 40 cardmarks. For example, ABX1 will include cardmarks A, B, X and 1 in the search.

7. You can choose to enter a specific serial number, by selecting **"Exact"**. You can also select **"Starting with"** in the combo box for Individuals and supply the beginning of the serial number, for example AE5.

The search result is displayed in the table below the search criteria:

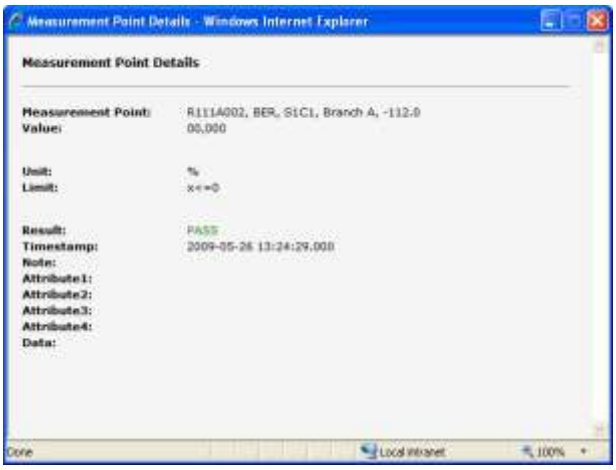


To view the protocol click on the appropriate row in the table and the protocol is opened.

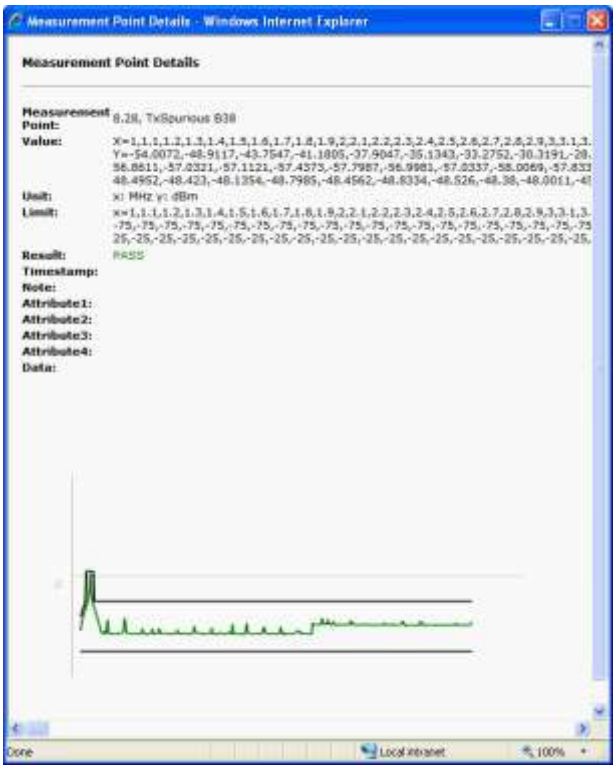
Measurement groups are displayed in the table with black text. Passed measurement points are green and failed are red. To view details for a measurement point or group double-click the row in the table and a popup window is displayed with detailed information.

It could like something like this for a measurement group:

Measurement point:



Curve measurement point:



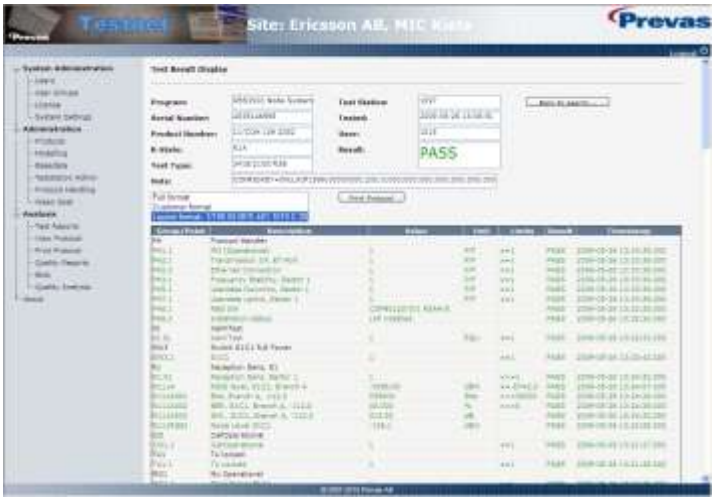
If the protocol contains instruments they are displayed in a table below the measurement table.

In this table you can double-click to view instrument details.

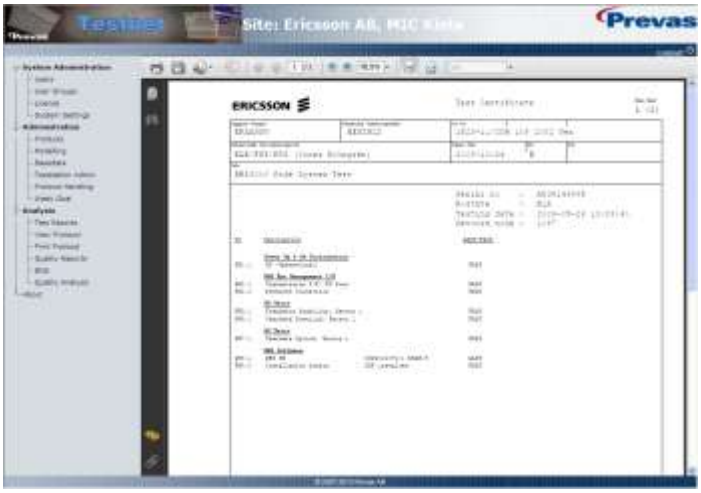
The popup is displayed with the detailed information.

Print Protocol to PDF

You can print the protocol to a PDF printer. Select the printout type you want Full format, Customer format or specific Layout File if any exists then click Print Protocol button.



Then the protocol appears in the browser window and you can print it to printer or save it on disk.


Testnet
Site: Ericsson AB, MIC Kista
Prevas
ERICSSON

Print Protocol

Description

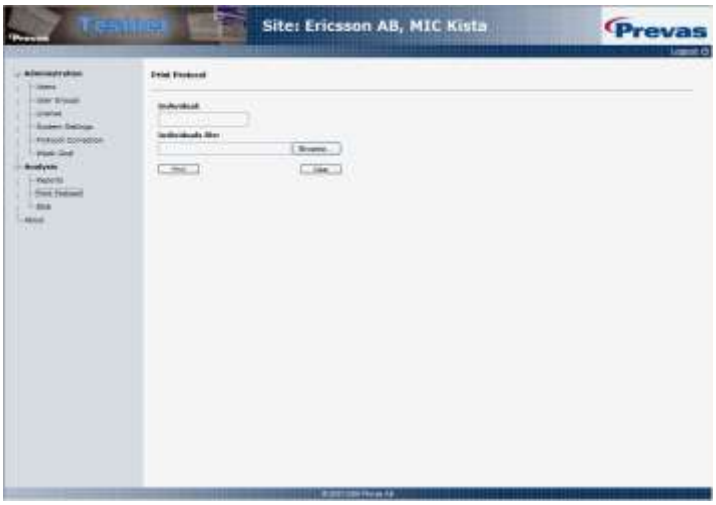
The Print Protocol page is only available on some sites. The tool enables you to create PDF files of protocols stored in Testnet database.

Not all protocols can be printed this way, the underlying Protocol print service has to be configured which products that are allowed to print protocols for.

How to Print Protocols

This is how you print protocols, select menu option Print Protocol

The following page will appear.



There are two ways to print protocols, you can supply one serial number in input field or you can supply a file with product numbers, R-states and serial numbers.

Protocol for One Individual

Enter a serial number in the text field **Individual** and then click Print button.

If you have entered a serial number that doesn't exist in Testnet database you will get an error message.

When the protocol is printed to PDF, it is zipped and you get a message asking if you want to open or save the resulting file.

If you want to keep the file we recommend that you save it locally and then open the zip-file.

The file contains the protocol if you are allowed to printout it. The name is first the serial number and then the test program with possible "/" characters exchanged with "_". If it is allowed to printout several different test types there might be multiple PDF files in zip.

In each zip-file there is also a file (errors.log) which holds information about missing tests, not allowed products and other possible faults. If no errors the included file is empty.

Protocol for Multiple Individuals

If you click the **[Browse…]** button you get a file dialog where you can point to a file with the proper file format, named *.txt.

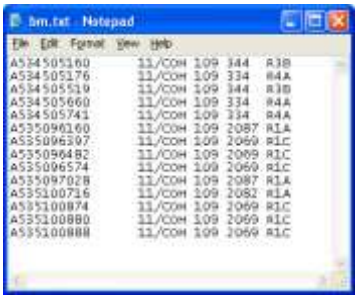
File format

The format of the file must be:

`Serial number<TAB>Product number<TAB>R-state`

`Serial number2<TAB>Product number2<TAB>R-state2`

This is an example of a valid file:



When the protocols are printed to PDF, they are zipped and you get a message asking if you want to open or save the resulting file. This is the same handling as described for one single individual.

Fault Diagram – Components

Description

The number of faults is shown in the first part of the report. Two values are shown here. The first number shows the number of Faults found relating to the selected Components. The second value, which is placed in brackets, shows the total number of faults found regardless of Components.

The upper table shows the number of faults and the fault distribution as a percentage for every component in the selection.

The graph shows the number of faults or the total number of faults as a percentage for every selected component during the chosen period.

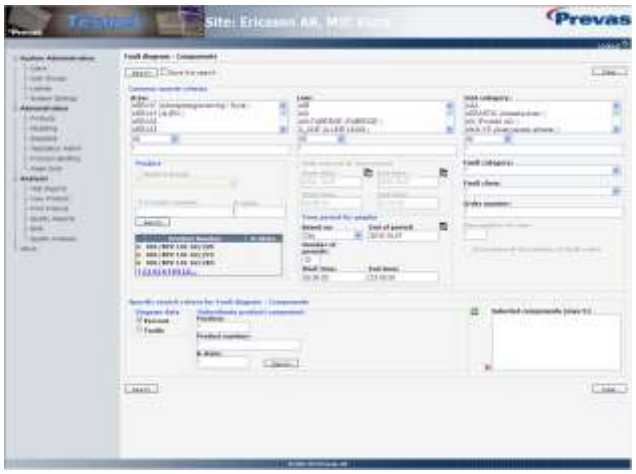
The lower table shows the graph data in numbers.

The information contained in the reports is obtained from the Quality database.

Create a Fault Diagram - Components

This is how you create a Fault Diagram - Components:

1. Click on Fault diagram - Components in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.

3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. Enter the end of the period of time you want the report to cover. Depending on which item selected in the **Based on** combo-box the formatting of **End of period** is different. You can click the calendar button and get help with selecting your date. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search.
8. Select a maximum of 5 components that the report should cover. You can also select if the data will be displayed in percent or number of faults by selecting the correct radio button.
9. Click on Search.

When the selection is completed, the spreadsheet will display the search result.

Save a Search

In Fault diagram - Components it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Fault Diagram - Components. When you have filled in all criteria select **Save this search** check box:

   Search Save this search Name:

   Supply a name for your search so you can load it later.
2. When you click Search the search is saved and can be loaded later.

3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on Search.

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on Remove.

Fault Diagram – Fault Codes

Description

The number of faults is shown in the first part of the report. Two values are shown here. The first number shows the number of Faults found relating to the selected Fault codes. The second value, which is placed in brackets, shows the total number of faults found regardless of Fault codes.

The upper table shows the number of faults and the fault distribution as a percentage for every fault code in the selection.

The graph shows the number of faults or the total number of faults as a percentage for every selected fault code during the chosen period.

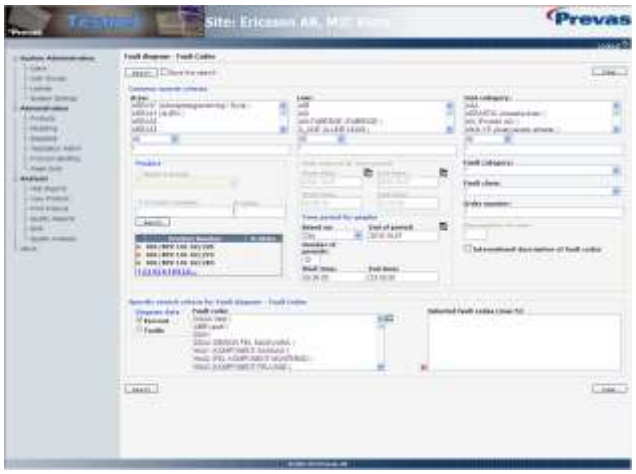
The lower table shows the graph data in numbers.

The information contained in the reports is obtained from the Quality database.

Create a Fault Diagram – Fault Codes

This is how you create a Fault Diagram – Fault Codes:

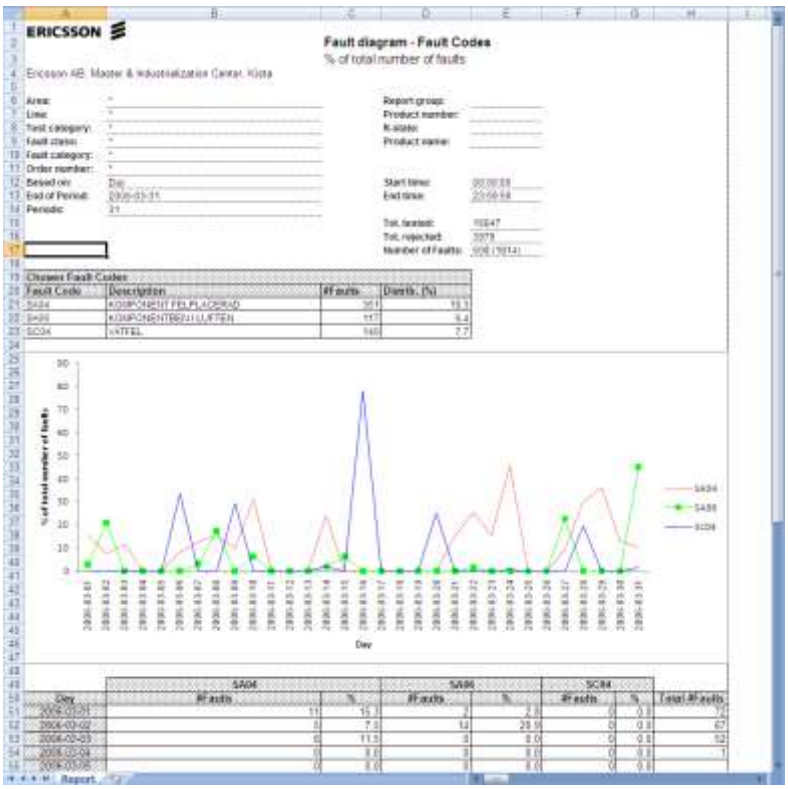
2. Click on Fault diagram - Fault Codes in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.

3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. Enter the end of the period of time you want the report to cover. Depending on which item selected in the **Based on** combo-box the formatting of **End of period** is different. You can click the calendar button and get help with selecting your date. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search. If you want international description of fault codes check the check-box.
8. Select a maximum of 5 fault codes that the report should cover. You can also select if the data will be displayed in percent or number of faults by selecting the correct radio button.
9. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



Save a Search

In Fault diagram – Fault Codes it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

4. Select the search criteria you want just as in section Create a Fault Diagram – Fault Codes. When you have filled in all criteria select **Save this search** check box:

   Search Save this search Name:

   Supply a name for your search so you can load it later.

5. When you click Search the search is saved and can be loaded later.
6. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

4. If you have saved searches when you enter the report, there will be some additional buttons displayed:

5. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
6. Click on Search.

How to Delete a Saved Search

3. Make sure the criteria for the search you want to delete is displayed.
4. Click on Remove.

Fault Diagram – Positions

Description

The number of faults is shown in the first part of the report. Two values are shown here. The first number shows the number of faults found relating to the selected Positions. The second value, which is placed in brackets, shows the total number of faults found regardless of Positions.

The upper table shows the number of faults and the fault distribution as a percentage for every position in the selection.

The graph shows the number of faults or the total number of faults as a percentage for every selected position during the chosen period.

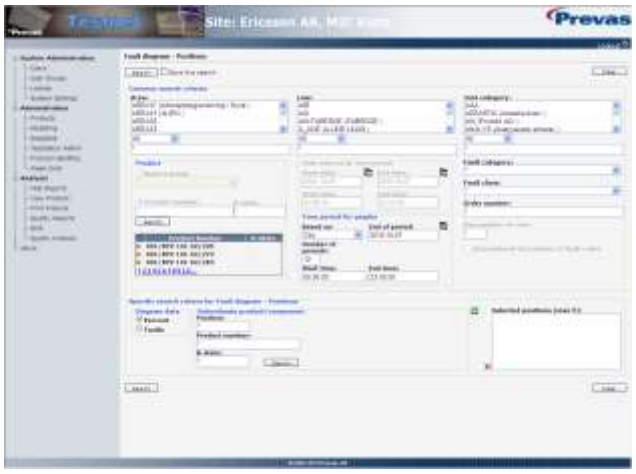
The lower table shows the graph data in numbers.

The information contained in the reports is obtained from the Quality database.

Create a Fault Diagram – Positions

This is how you create a Fault Diagram – Positions:

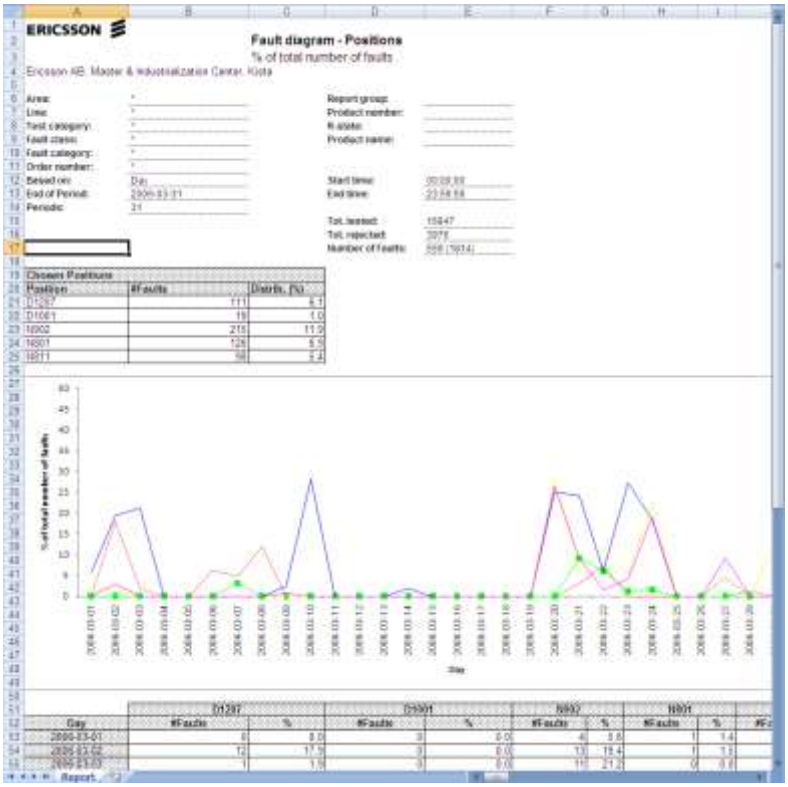
3. Click on Fault diagram - Positions in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.

3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. Enter the end of the period of time you want the report to cover. Depending on which item selected in the **Based on** combo-box the formatting of **End of period** is different. You can click the calendar button and get help with selecting your date. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search.
8. Select a maximum of 5 positions that the report should cover. You can also select if the data will be displayed in percent or number of faults by selecting the correct radio button.
9. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



Save a Search

In Fault diagram – Positions it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

7. Select the search criteria you want just as in section Create a Fault Diagram – Positions. When you have filled in all criteria select **Save this search** check box:

   Search Save this search Name:

   Supply a name for your search so you can load it later.
8. When you click Search the search is saved and can be loaded later.

9. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

7. If you have saved searches when you enter the report, there will be some additional buttons displayed:

8. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
9. Click on Search.

How to Delete a Saved Search

5. Make sure the criteria for the search you want to delete is displayed.
6. Click on Remove.

Fault Diagram – Products

Description

The diagram report faults per product is divided into two categories; one shows data for selected tested products and the other shows data for selected faulty products.

Tested Products

The number of faults is shown in the first part of the report. Two values are shown here. The first number shows the number of faults found relating to the selected products. The second value, which is placed in brackets, shows the total number of faults found regardless of products.

The upper table shows the number of faults and the fault distribution as a percentage for every product in the selection.

The graph shows the number of faults or the total number of faults as a percentage for every selected product during the chosen period.

The lower table shows the graph data in numbers.

Faulty Products

The number of faults is shown in the first part of the report. Two values are shown here. The first number shows the number of faults found relating to the selected products. The second value, which is placed in brackets, shows the total number of faults found regardless of products.

The upper table shows the number of faults and the fault distribution as a percentage for every product in the selection.

The graph shows the number of faults or the total number of faults as a percentage for every selected product during the chosen period.

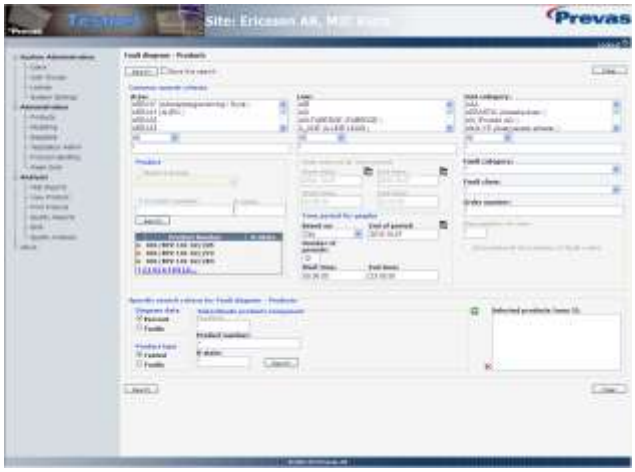
The lower table shows the graph data in numbers.

The information contained in the reports is obtained from the Quality database.

Create a Fault Diagram – Products

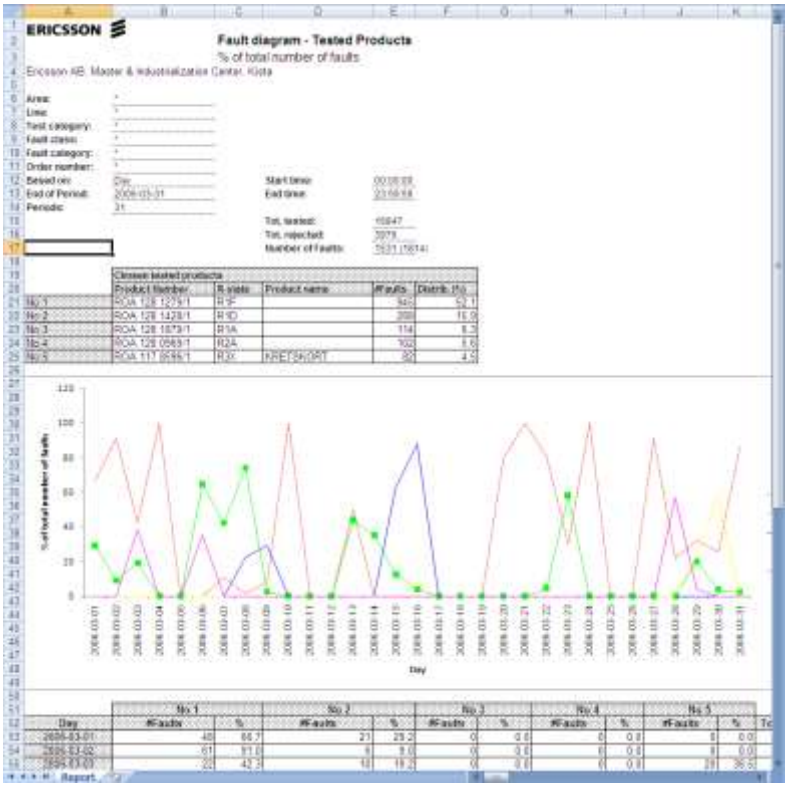
This is how you create a Fault Diagram – Products:

4. Click on in the Quality – Reports window, and then on .
   The following page will appear.

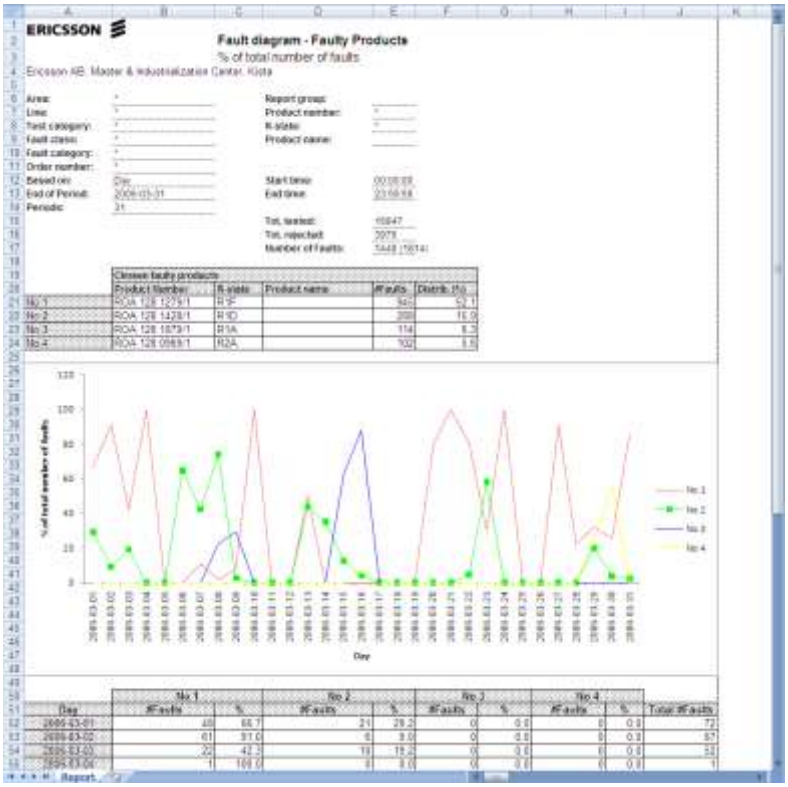


2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. Enter the end of the period of time you want the report to cover. Depending on which item selected in the **Based on** combo-box the formatting of **End of period** is different. You can click the calendar button and get help with selecting your date. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search.
8. Decide if it should be **Tested** or **Faulty** products.
9. If you select faulty Products then the tested product is the product number shown in the **Product** frame. If you do not want to define a specific product then you should enter the wildcard (*).
   Select a maximum of 5 products that the report should cover. You can also select if the data will be displayed in percent or number of faults by selecting the correct radio button.
10. Click on Search.

When the selection is completed, the spreadsheet will display the search result. Something like this it will look for tested products.



And something like this with faulty products.



Save a Search

In Fault diagram – Products it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

10. Select the search criteria you want just as in section Create a Fault Diagram – Products. When you have filled in all criteria select **Save this search** check box:

Supply a name for your search so you can load it later.
11. When you click the search is saved and can be loaded later.

12. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

10. If you have saved searches when you enter the report, there will be some additional buttons displayed:

11. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
12. Click on .

How to Delete a Saved Search

7. Make sure the criteria for the search you want to delete is displayed.
8. Click on .

Fault Outcome Graph

Description

The fault outcome graph provides information on the fault outcome and on the number of faulty and tested products. The report is presented as a graph of the selected report location and period.

The information is presented by report location and period as well as for the select product or report group. If you choose a report group, the results for every product in the report group will be combined and presented together.

The report is based on the test and inspection inputs that were made during the specified period.

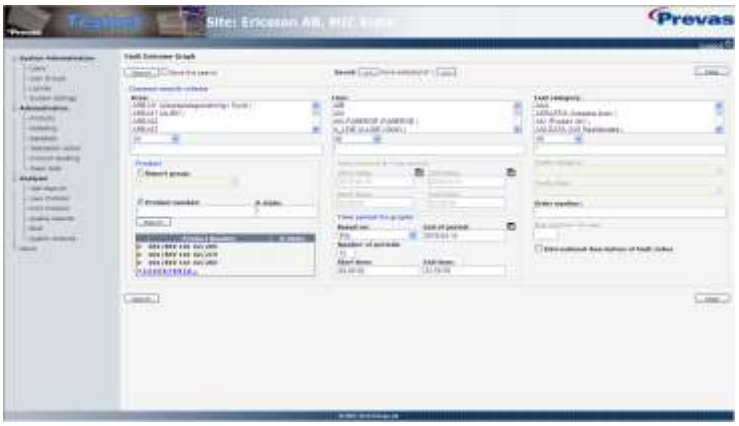
The report is based on "first-time yield"—that is, if an individual is tested several times at the same report location, it will not be included more than once in report.

The information contained in the reports is obtained from the Quality database.

Create a Fault Outcome Graph

This is how you create a Fault Outcome graph:

1. Click on Fault Outcome Graph in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.

3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the end of the period of time you want the report to cover. Depending on which item selected in the **Based on** combo-box the formatting of **End of period** is different. You can click the calendar button and get help with selecting your date. The start and end times of each day can also be specified for the search.
7. You can also specify an order number to limit the search. If you want international description of fault codes check the check-box.
8. Click on Search.

When the selection is completed, the spreadsheet will display the search result.

ERICSSON
Fault Outcome Graph
Ericsson AB, Master & Industrialization Center, Kista
Area:
Line:
Test category:
Order number:
Based on:
End of Period:
Periods:
Product number:
R-state:
Product name:
Report group:
Start time:
End time:
Tested
Faulty
Fault outcome %
Tested / Faulty
Fault outcome % / Goal %
Month
Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May
Period | Fault outcome % | Goal % | Tested | Faulty
Jun | 21.2 | | 6687 | 1417
Jul | 18.1 | | 4536 | 894
Aug | 17.8 | | 11111 | 1982
Sep | 16.4 | | 11569 | 1894
Oct | 12.7 | | 13685 | 1735
Nov | 13.2 | | 12674 | 1673
Dec | 17.2 | | 11529 | 1978
Jan | 14.0 | | 16722 | 2348
Feb | 15.0 | | 14157 | 2117
Mar | 15.2 | | 20667 | 3147
Apr | 11.0 | | 19901 | 2199
May | 10.1 | | 5459 | 559
Report
ReportInformation

Save a Search

In Fault Outcome graph it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

13. Select the search criteria you want just as in section Create a Fault Outcome Graph. When you have filled in all criteria select **Save this search** check box:

Supply a name for your search so you can load it later.

14. When you click Search the search is saved and can be loaded later.
15. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

13. If you have saved searches when you enter the report, there will be some additional buttons displayed:

14. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
15. Click on Search.

How to Delete a Saved Search

9. Make sure the criteria for the search you want to delete is displayed.
10. Click on Remove.

Fault Outcome Report (Products)

Description

The fault outcome report (products) provides information on the fault outcome and the number of tested and faulty products. The fault outcome is presented in descending order as a top-ten list, that is, the worst fault outcome first, which makes it possible to compare the fault outcome of different report locations.

The information is presented for every product or report group for a specified period. If you choose a report group, the results of the products in the report group will be combined and presented together. Every report location through which a product from the report group passes will be included in the report.

Test input or inspection input is required for generating a fault outcome report.

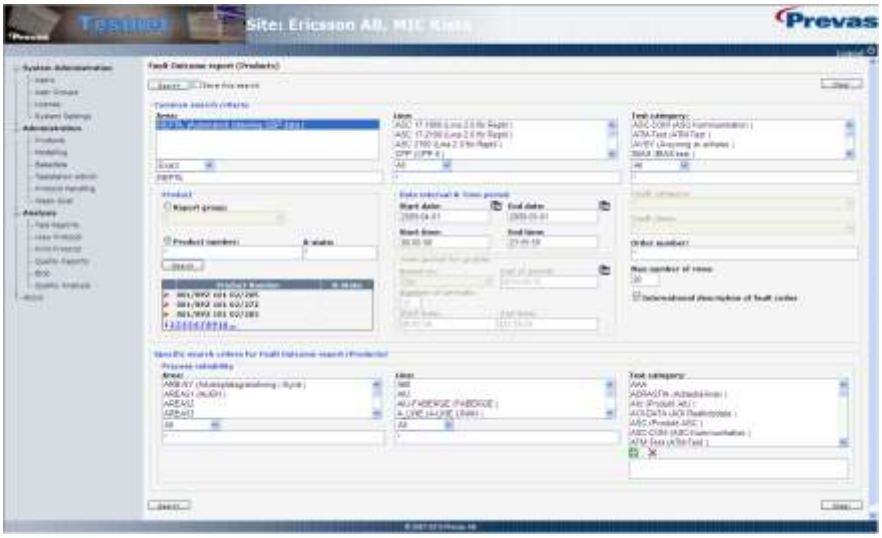
The report is based on "first-time yield"—that is, if an individual is tested several times at the same report location, it will not be included more than once in report. The total of tested and rejected in the report header is all tests not only first-time tests.

The information contained in the reports is obtained from the Quality database.

Create a Fault Outcome Report (Products)

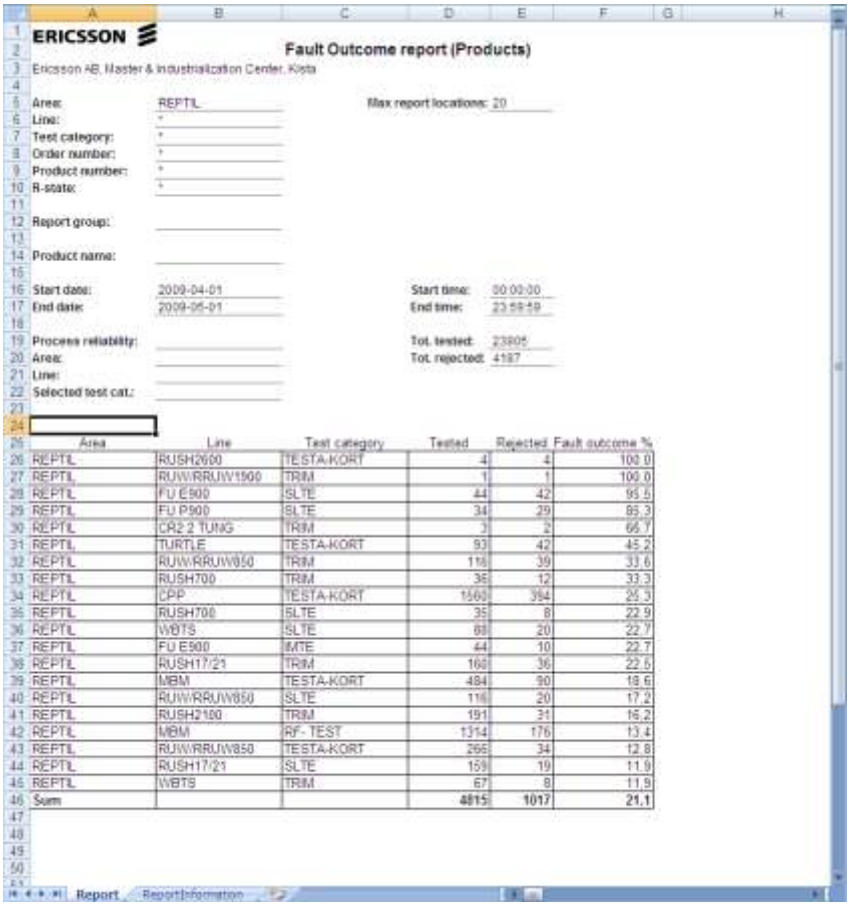
This is how you create a fault outcome report (products):

1. Click on Yield report (Products) in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify an order number and max number of rows to limit the search. If you want international description of fault codes check the check-box.
8. Enter the **Area** and **Line**.
9. Enter a **Test category**.
10. Add the test category to the bottom list by clicking on .
11. Repeat step 9 and 10 for the desired number of test categories.
12. To remove a test category, select it in the list and click on .
13. Click on .

When the selection is completed, the spreadsheet will display the search result.



ERICSSON

Fault Outcome report (Products)

Ericsson AB, Master & Industrialization Center, Kista

Area: REPTIL
Line: *
Test category: *
Order number: *
Product number: *
R-state: *
Report group:
Product name:
Start date: 2009-04-01
End date: 2009-05-01
Max report locations: 20
Start time: 00:00:00
End time: 23:59:59
Process reliability:
Area:
Line:
Selected test cat.:
Tot. tested: 23805
Tot. rejected: 4187

Area	Line	Test category	Tested	Rejected	Fault outcome %
REPTIL	RUSH2600	TESTA-KORT	4	4	100.0
REPTIL	RUW/RRU/V1900	TRIM	1	1	100.0
REPTIL	FU E900	SLTE	44	42	95.5
REPTIL	FU P900	SLTE	34	29	85.3
REPTIL	CR2.2 TUNG	TRIM	3	2	66.7
REPTIL	TURTLE	TESTA-KORT	93	42	45.2
REPTIL	RUW/RRUW850	TRIM	116	39	33.6
REPTIL	RUSH700	TRIM	36	12	33.3
REPTIL	CPP	TESTA-KORT	1560	394	25.3
REPTIL	RUSH700	SLTE	35	8	22.9
REPTIL	WBTS	SLTE	88	20	22.7
REPTIL	FU E900	IMTE	44	10	22.7
REPTIL	RUSH17/21	TRIM	160	36	22.5
REPTIL	MBM	TESTA-KORT	484	90	18.6
REPTIL	RUW/RRUW850	SLTE	116	20	17.2
REPTIL	RUSH2100	TRIM	191	31	16.2
REPTIL	MBM	RF- TEST	1314	176	13.4
REPTIL	RUW/RRUW850	TESTA-KORT	266	34	12.8
REPTIL	RUSH17/21	SLTE	159	19	11.9
REPTIL	WBTS	TRIM	67	8	11.9
Sum			4815	1017	21.1

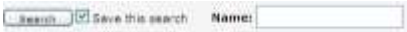
Report ReportInformation

Save a Search

In Fault Outcome Report (Products) it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

16. Select the search criteria you want just as in section Create a Fault Outcome Report (Products). When you have filled in all criteria select **Save this search** check box:

    Supply a name for your search so you can load it later.

17. When you click the search is saved and can be loaded later.

18. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

16. If you have saved searches when you enter the report, there will be some additional buttons displayed:

17. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.

18. Click on .

How to Delete a Saved Search

11. Make sure the criteria for the search you want to delete is displayed.

12. Click on Remove.

Fault Outcome Report (Report Locations)

Description

The Fault Outcome report (report locations) gives information on the fault outcome and the number of faulty and tested products. The fault outcome is presented in descending order as a top-ten list, that is, the product with the worst outcome is presented first.

The report presents information for every product for a specific report location and period.

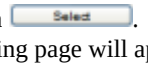
The report is based on test and inspection inputs made during the specified period.

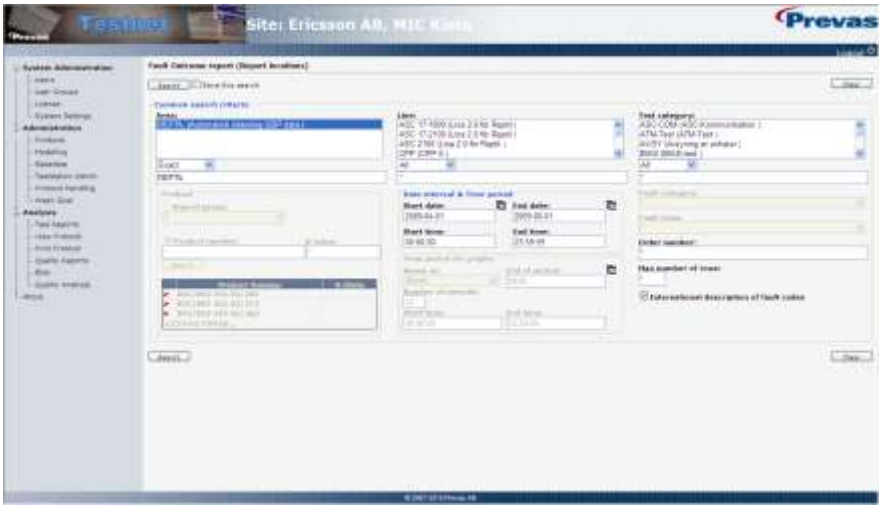
The report is based on "first-time yield"—that is, if an individual is tested several times at the same report location, it will not be included more than once in report. The total of tested and rejected in the report header is all tests not only first-time tests.

The information contained in the reports is obtained from the Quality database.

Create a Fault Outcome Report (Report Locations)

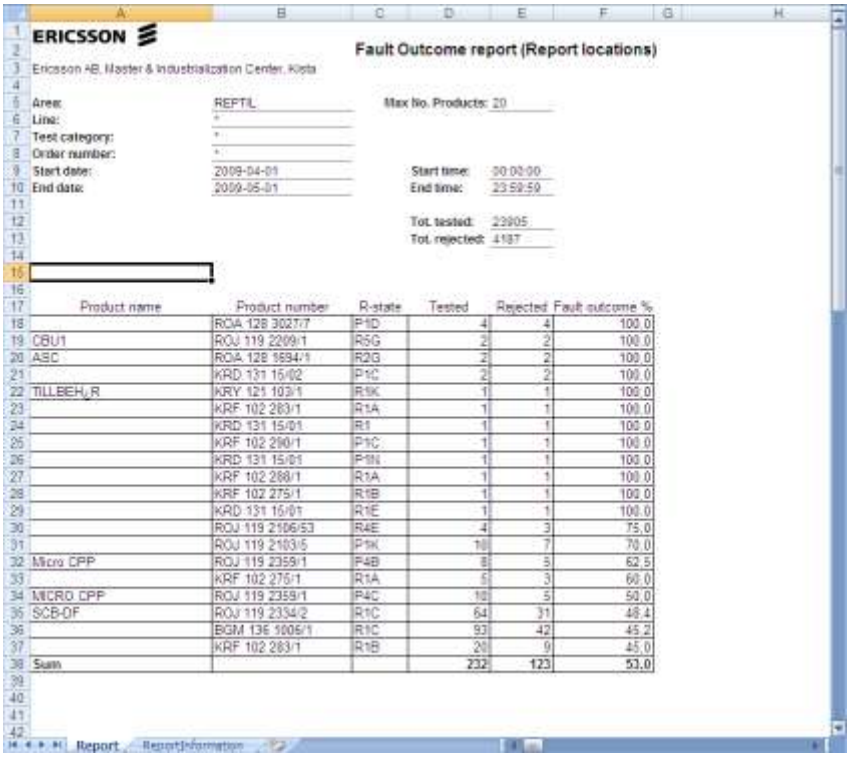
This is how you create a fault outcome report (report locations):

1. Click on in the Quality – Reports window, and then on  .
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. Enter the period of time you want the report to cover. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
6. You can also specify an order number and max number of rows to limit the search. If you want international description of fault codes check the check-box.
7. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



ERICSSON

Ericsson AB, Master & Industrialization Center, Kista

Fault Outcome report (Report locations)

Area:	REPTIL
Line:	*
Test category:	*
Order number:	*
Start date:	2009-04-01
End date:	2009-05-01

Max No. Products: 20

Start time: 00:00:00
End time: 23:59:59

Tot. tested: 22905
Tot. rejected: 4187

Product name	Product number	R-state	Tested	Rejected	Fault outcome %
	ROA 128 3027/7	P1D	4	4	100.0
CBU1	ROJ 119 2209/1	R5G	2	2	100.0
ASC	ROA 128 3694/1	R2G	2	2	100.0
	KRD 131 15/02	P1C	2	2	100.0
TILLBEH_R	KRY 121 103/1	R1K	1	1	100.0
	KRF 102 283/1	R1A	1	1	100.0
	KRD 131 15/01	R1	1	1	100.0
	KRF 102 290/1	P1C	1	1	100.0
	KRD 131 15/01	P1N	1	1	100.0
	KRF 102 288/1	R1A	1	1	100.0
	KRF 102 275/1	R1B	1	1	100.0
	KRD 131 15/01	R1E	1	1	100.0
	ROJ 119 2106/53	R4E	4	3	75.0
	ROJ 119 2103/5	P1K	10	7	70.0
Micro CPP	ROJ 119 2359/1	P4B	8	5	62.5
	KRF 102 275/1	R1A	5	3	60.0
MICRO_CPP	ROJ 119 2359/1	P4C	10	5	50.0
SCB-DF	ROJ 119 2334/2	R1C	64	31	48.4
	BGM 136 1006/1	R1C	93	42	45.2
	KRF 102 283/1	R1B	20	9	45.0
Sum			232	123	53.0

Report | ReportInformation

Save a Search

In Fault Outcome graph it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Fault Outcome Report (Report Locations). When you have filled in all criteria select **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on .

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on .

Fault Report Positions vs. Fault Codes

Description

The Fault report (positions versus fault codes) displays the following information on each faulty product:

- Product number, R-state and product designation.
- How many times the product has been tested and how many times it was faulty.

Depending on whether the report is sorted according to "positions per fault code" or "fault codes per position," the presentation contains:

- The sum of all faults and the sum of all fault points. The number of faults multiplied by the fault points which are distributed among the fault codes used for reporting the faults.

Or

- The sum of all faults and the sum of all fault points distributed among the reported positions of the faults.

The information is presented for each report location, for the specified period and product or report group. If you choose a report group, the results of the input products will not be combined, which means it is possible to obtain statistics on individual products in the group by descending into the product structure.

You can also state a fault category when you create the report. Only the fault codes that are linked to this category will be displayed in the report.

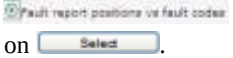
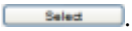
You can choose to sort the information according to fault codes for each position or positions for each fault code.

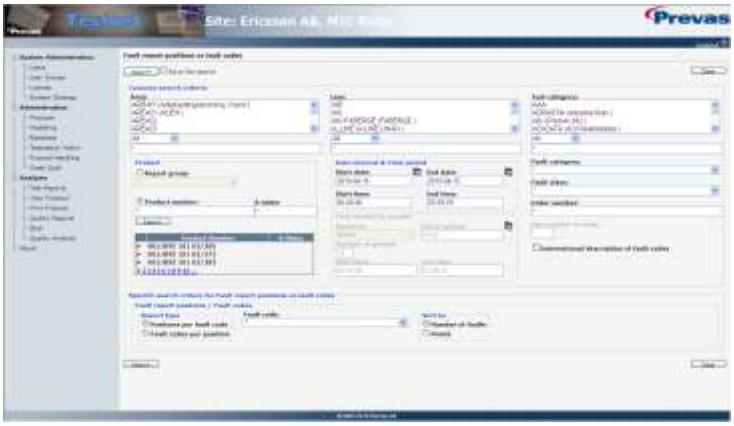
The report is based on the fault and inspection inputs that were made during the specified period.

The information contained in the reports is obtained from the Quality database.

Create a Fault Report Positions vs. Fault Codes

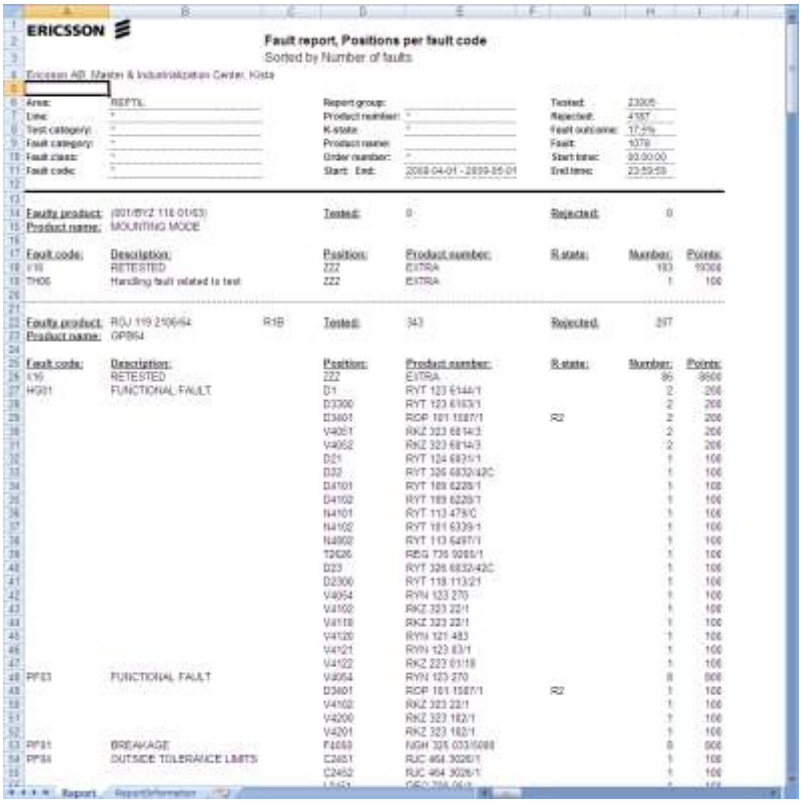
This is how you create a fault report positions versus fault codes report:

1. Click on  in the Quality – Reports window, and then on  .
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover.. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search. If you want international description of fault codes check the check-box.
8. Determine whether the information is to be presented according to **Fault codes per position** or **Positions per fault code**.
3. Determine whether the report is to be sorted according to **Points** or **Number of faults**.
4. If you want the report to comprise only one or a few fault codes, type search criteria in the field **Fault code**. You can use the wildcard (*).
8. Click on Search.

When the selection is completed, the spreadsheet will display the search result.

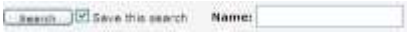


Save a Search

In fault report positions versus fault codes report it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Fault Report Positions vs. Fault Codes. When you have filled in all criteria select **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on .

How to Delete a Saved Search

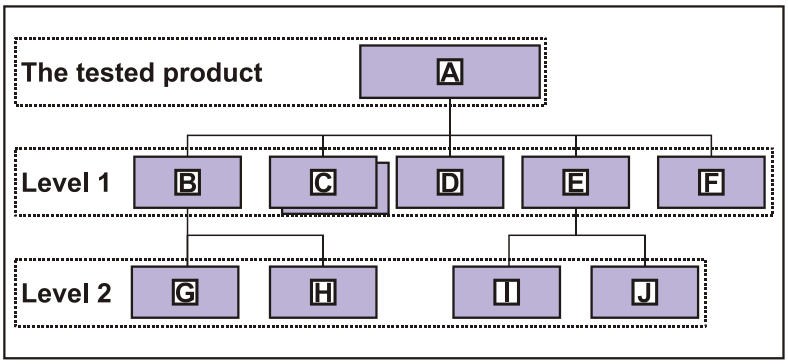
1. Make sure the criteria for the search you want to delete is displayed.
2. Click on .

Hierarchical Fault Outcome Report

Description

This report gives information about the fault outcome in several levels. A normal fault outcome report only gives information about the tested product. For example, a fault outcome report on a node (an AXE switch) only gives the fault outcome for the top product.

By using an hierarchical fault outcome report, it is possible to get a fault outcome report for the three top levels in a product structure.



In this example, product **A** has five sub-products or components, **B** to **F**. Two of these sub-products have sub-products themselves.

For each component (**C**, **D**, **F**, and **G** to **J**), the fault outcome is calculated individually. If a component is used more than once in the product structure, such as **C**, for each level, then an aggregated fault outcome for the components will be calculated.

Example: : The **C** component exists in two places in the product structure, and its fault outcome must be aggregated. For one of the **C** components, the fault outcome is (9/45)=0.2 which is 20% (the number of faulty divided with the number of tested units). For the other **C** component, the fault outcome is (15/40)=0.375 which is 37.5%. The aggregated fault outcome for the **C** component will be 1-(9+15)/(45+40)=0.28 which is 28% (the sum of the number of faulty divided with the sum of the number of tested units). The sum of the number of tested units will be shown in the report.

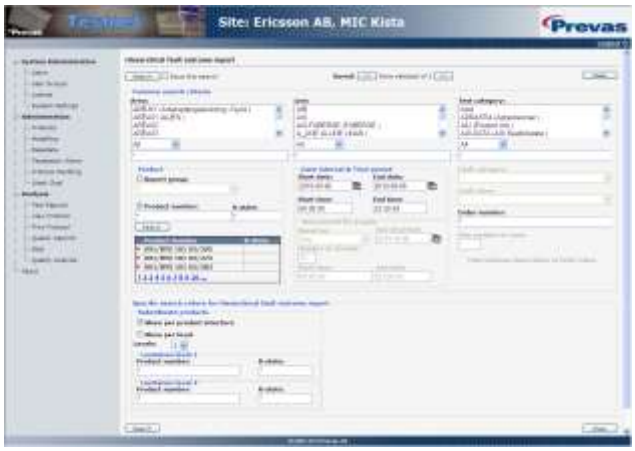
For a product, such as **B**, that has components, the fault outcome will be based on the test results for the **B** product, and so will **A** and **E**.

The information contained in the reports is obtained from the Quality database.

Create a Hierarchical Fault Outcome Report

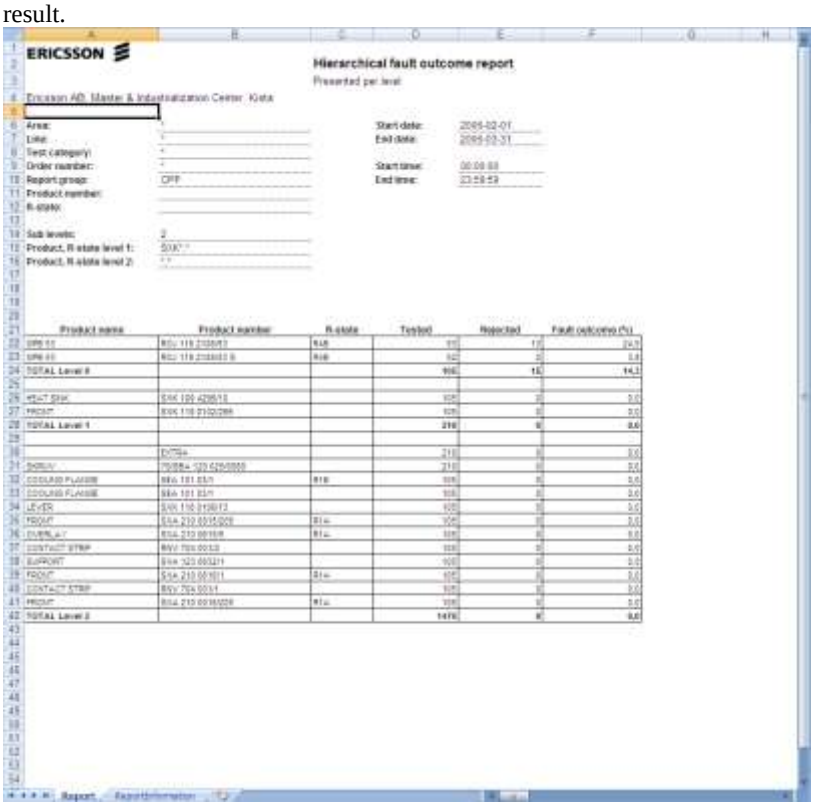
This is how you create a hierarchical fault outcome report:

1. Click on Hierarchical fault outcome report in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover.. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify an order number to limit the search.
8. Determine whether the information is to be presented according to **Show per product structure** or **Show per level**. If you choose to **Show per product structure**, all the products and components matching the search criteria and the number of **Levels** will be shown in the report. If you choose to **Show per level**, only the products and components for the selected **Levels** will be shown in the report.
9. **Levels** you can choose between 1 and 2. In **Levels** you can choose between 1 and 2. 1 means the tested product and its first level in the product structure. 2 means the tested product and its first and second levels in the product structure.
10. If you want to limit level 1 and/or level 2, you can enter search criteria in **Limitation level 2** or **Limitation level 1**. It is possible to use the wildcard (*). If you have chosen To receive a report for only one level, then the limitation for level 2 will not be available.
11. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



Save a Search

In hierarchical fault outcome report it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Hierarchical Fault Outcome Report. When you have filled in all criteria select **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on .

How to Delete a Saved Search

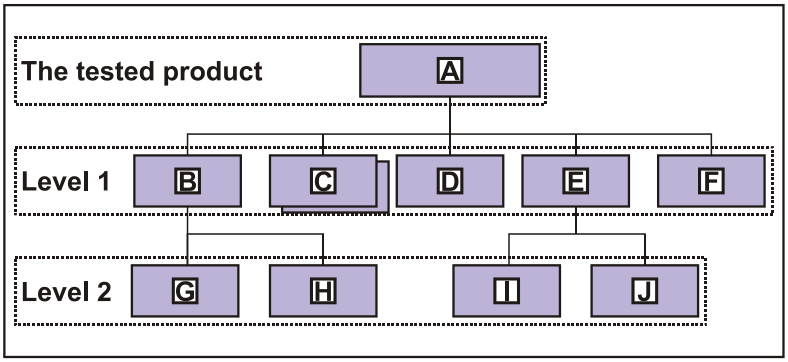
1. Make sure the criteria for the search you want to delete is displayed.
2. Click on .

Hierarchical Yield Report

Description

This report gives information about the yield in several levels. A normal yield report only gives information about the tested product. For example, a yield report on a node (an AXE switch) only gives the yield for the top product.

By using an hierarchical yield report, it is possible to get a yield report for the top three levels in a product structure.



In this example, product **A** has five sub-products or components, **B** to **F**. Two of these sub-products have sub-products themselves.

The yield is calculated individually or each component (**C**, **D**, **F**, and **G** to **J**). If a component is used more than once in the product structure, such as **C,** for each level, then an aggregated yield for the components will be calculated.

Example: The **C** component exists in two places in the product structure, and its yield must be aggregated. For one of the **C** components, the yield is 1-(9/45)=0.8 which is 80% (1 - the number of faulty divided with the number of tested units). For the other **C** component, the yield is 1-(15/40)=0.625 which is 62.5%. The aggregated yield for the **C** component will be 1-(9+15)/(45+40)=0.72 which is 72% (1 - the sum of the number of faulty divided with the sum of the number of tested units). The sum of the number of tested units will be shown in the report.

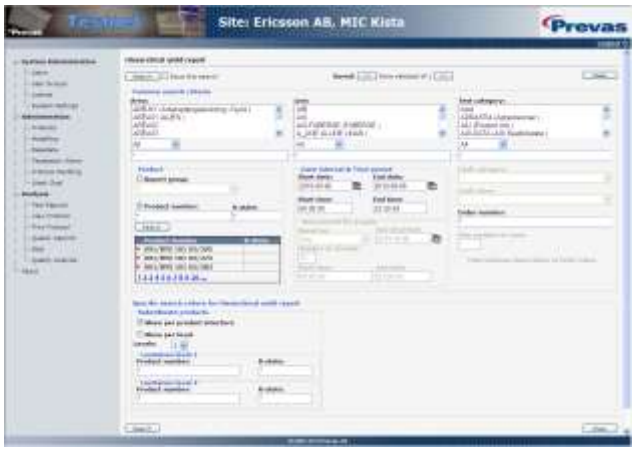
For a product, such as **B**, that has components, the yield will be based on the test results for the **B** product, and so will **A** and **E**.

The information contained in the reports is obtained from the Quality database.

Create a Hierarchical Yield Report

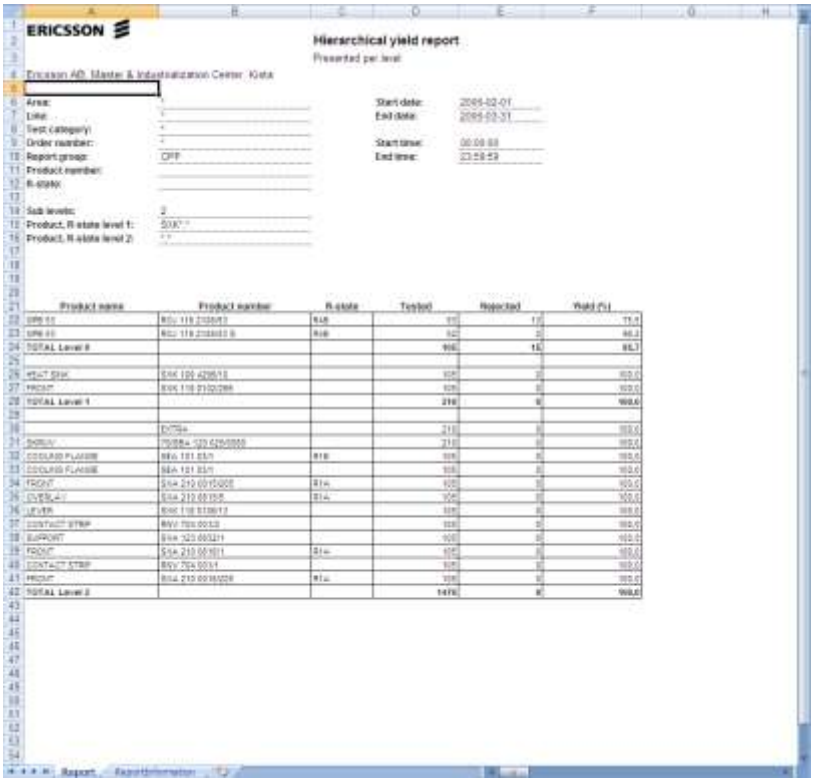
This is how you create a hierarchical yield report:

1. Click on Hierarchical yield report in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover.. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify an order number to limit the search.
8. Determine whether the information is to be presented according to **Show per product structure** or **Show per level**. If you choose to **Show per product structure**, all the products and components matching the search criteria and the number of **Levels** will be shown in the report. If you choose to **Show per level**, only the products and components for the selected **Levels** will be shown in the report.
9. **Levels** you can choose between 1 and 2. In **Levels** you can choose between 1 and 2. 1 means the tested product and its first level in the product structure. 2 means the tested product and its first and second levels in the product structure.
10. If you want to limit level 1 and/or level 2, you can enter search criteria in **Limitation level 2** or **Limitation level 1**. It is possible to use the wildcard (*). If you have chosen To receive a report for only one level, then the limitation for level 2 will not be available.
11. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



Save a Search

In hierarchical yield report it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Hierarchical Yield Report. When you have filled in all criteria select **Save this search** check box:
   Search Save this search Name:
   Supply a name for your search so you can load it later.
2. When you click Search the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:
   Saved: << (1 of 1) >> PO_Report Remove
2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on Search.

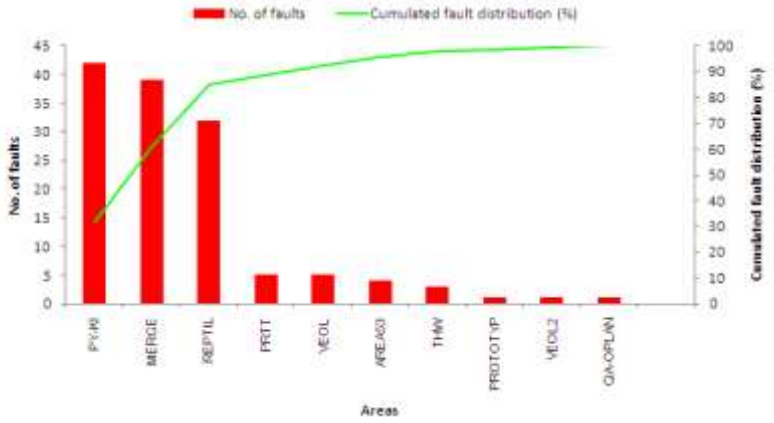
How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on Remove

Pareto - Areas

Description

The Pareto-Areas report presents data for the areas where the fault input was made.



The first 10 bars in the diagram show the 10 most common areas for the chosen products. The eleventh bar shows the proportionate size of the total number of faults that originate from other areas.

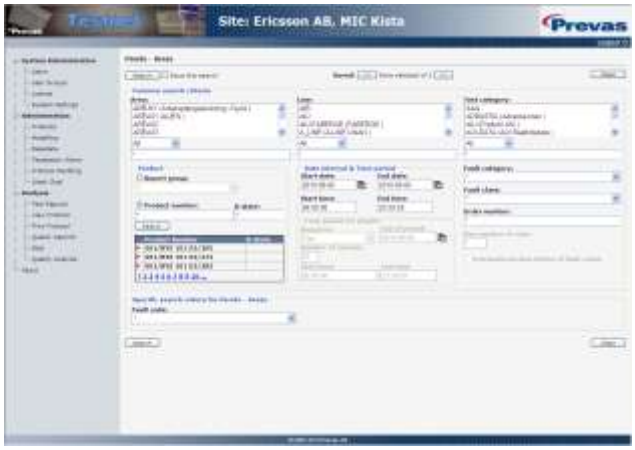
The line graph shows the cumulative fault frequency of the areas expressed as a percentage. The diagram above shows that 32% of the faults originate from area PY-KI and 29% from area MERGE and 24% from area REPTIL, which means that 85% of all faults are caused by these three areas. The exact values may be obtained from the table in the same report.

The information contained in the reports is obtained from the Quality database.

Create a Pareto - Areas Report

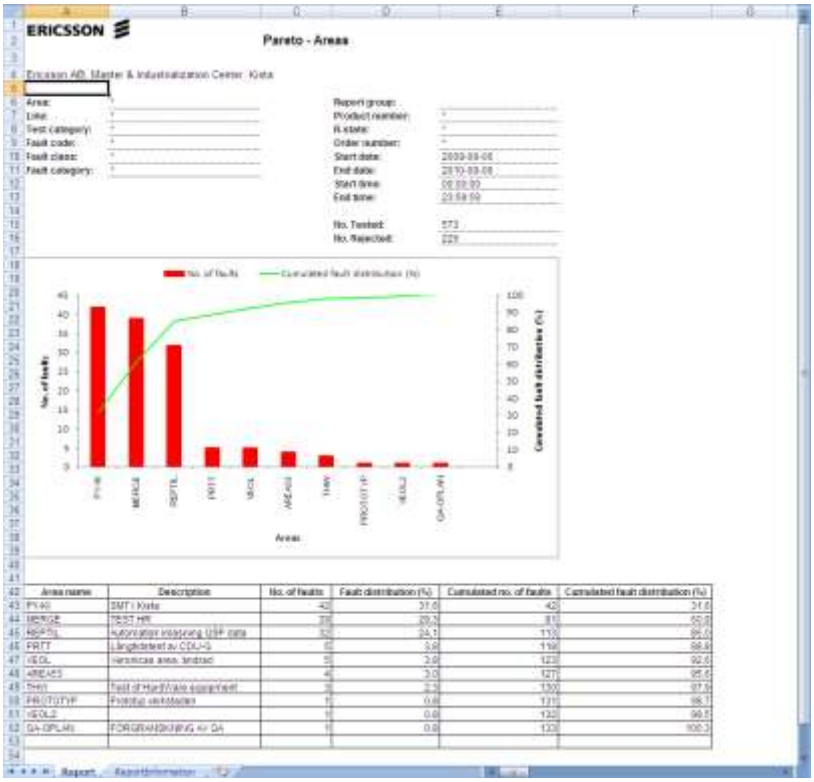
This is how you create a pareto areas report:

1. Click on Pareto - Areas in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover.. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search.
8. If you want to limit the search on **Fault code**, select it in the combo box. If you keep the * all fault codes will be used.
9. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



Save a Search

In pareto areas report it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Pareto - Areas Report. When you have filled in all criteria select **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click the search is saved and can be loaded later.

3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on .

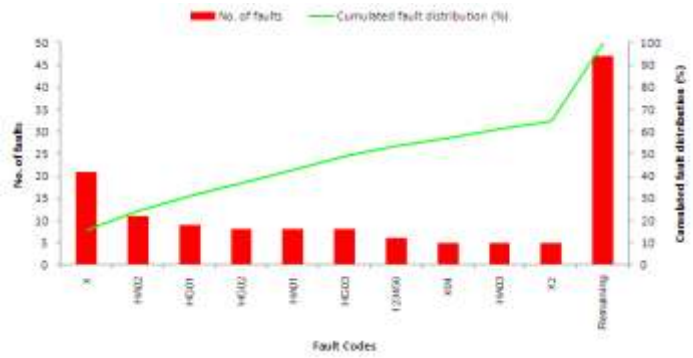
How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on

Pareto – Fault Codes

Description

The Pareto-Fault Codes report presents data for the fault codes used when the fault input was made.



The first 10 bars in the diagram show the 10 most common fault codes for the chosen products. The eleventh bar shows the proportionate size of the total number of faults that originate from other fault codes.

The line graph shows the cumulative fault frequency of the fault codes expressed as a percentage. The diagram above shows that 16% of the faults originate from fault code X and 8% from fault code HA02, which means that 14% of all faults are caused by two fault codes. The exact values may be obtained from the table in the same report.

The information contained in the reports is obtained from the Quality database.

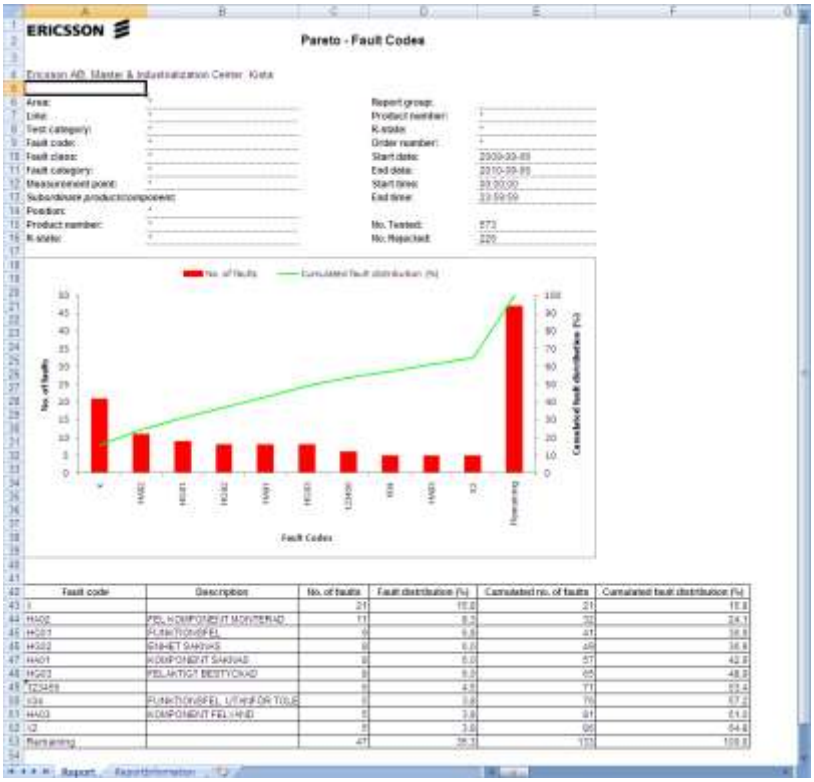
Create a Pareto – Fault Codes Report

This is how you create a pareto fault codes report:

1. Click on Pareto - Fault Codes in the Quality – Reports window, and then on Select.
   The following page will appear.

2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover.. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search. If you want international description of fault codes check the check-box.
8. If you want to limit the search on **Fault code**, select it in the combo box. If you keep the * all fault codes will be used.
9. You can also supply a **Measurement point** to limit the search.
10. It is optional to limit the search even further by supplying values for **Position**, **Product number** and **R-state** for subordinate product/component.
11. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



Save a Search

In pareto fault codes report it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

Select the search criteria you want just as in section The information contained in the reports is obtained from the Quality database.

1. Create a Pareto – Fault Codes Report. When you have filled in all criteria select **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click the search is saved and can be loaded later.

3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on .

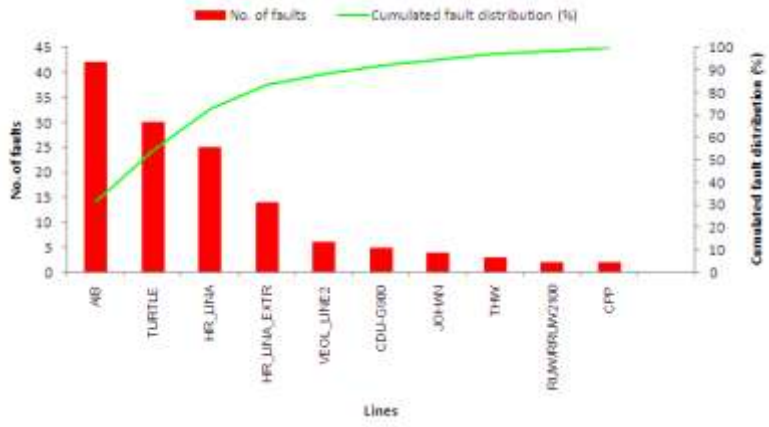
How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on

Pareto - Lines

Description

The Pareto-Lines report presents data for the lines where the fault input was made.



The first 10 bars in the diagram show the 10 most common lines for the chosen products. The eleventh bar shows the proportionate size of the total number of faults that originate from other lines.

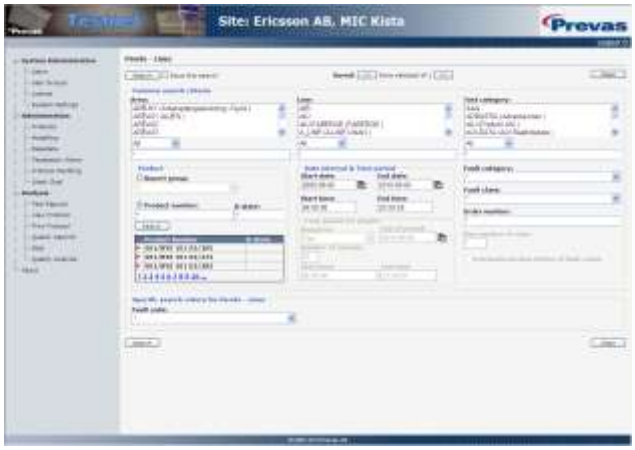
The line graph shows the cumulative fault frequency of the lines expressed as a percentage. The diagram above shows that 32% of the faults originate from line AIB and 23% from line TURTLE and 19% from line HR_LINA, which means that 73% of all faults are caused by these three lines. The exact values may be obtained from the table in the same report.

The information contained in the reports is obtained from the Quality database.

Create a Pareto - Lines Report

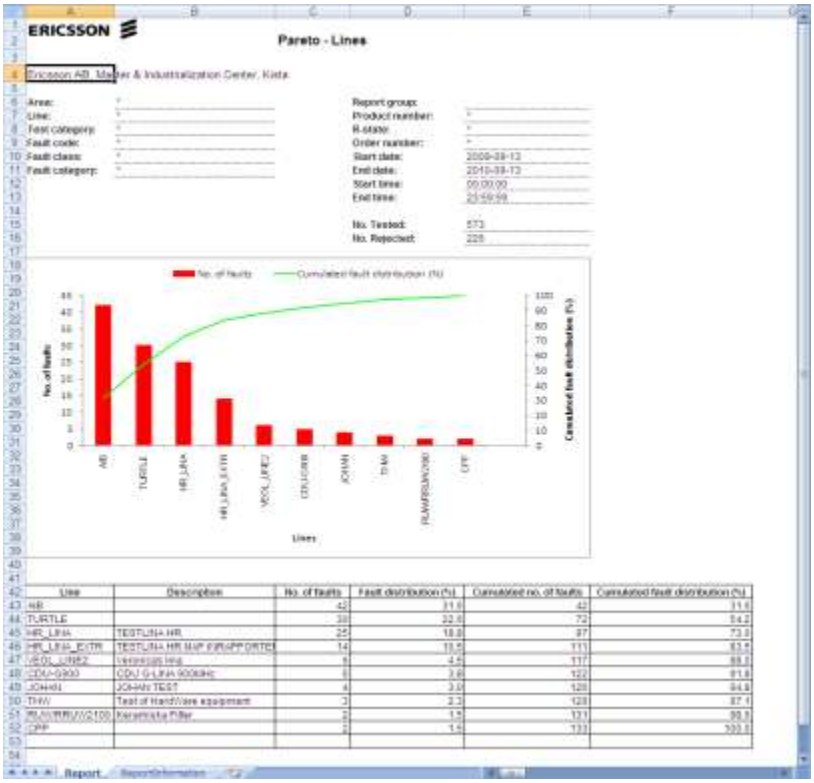
This is how you create a pareto lines report:

1. Click on Pareto - Lines in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover.. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search.
8. If you want to limit the search on **Fault code**, select it in the combo box. If you keep the * all fault codes will be used.
9. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



Save a Search

In pareto lines report it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

Select the search criteria you want just as in section The information contained in the reports is obtained from the Quality database.

1. Create a Pareto - Lines Report. When you have filled in all criteria select **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click the search is saved and can be loaded later.

3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on .

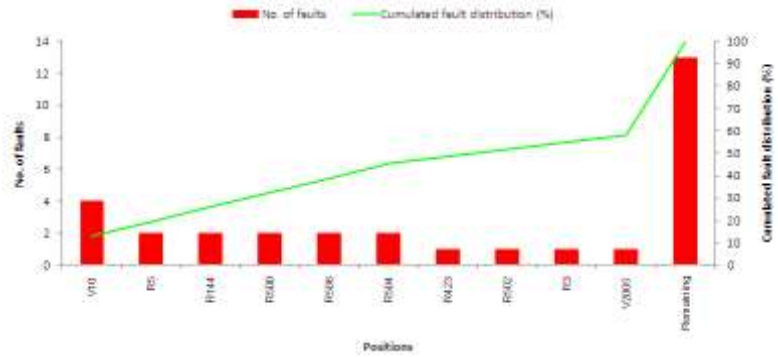
How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.
2. Click on

Pareto – Positions

Description

The Pareto-Positions report presents data for positions where the fault input was made.



The first 10 bars in the diagram show the 10 most common positions for the chosen products. The eleventh bar shows the proportionate size of the total number of faults that originate from other positions.

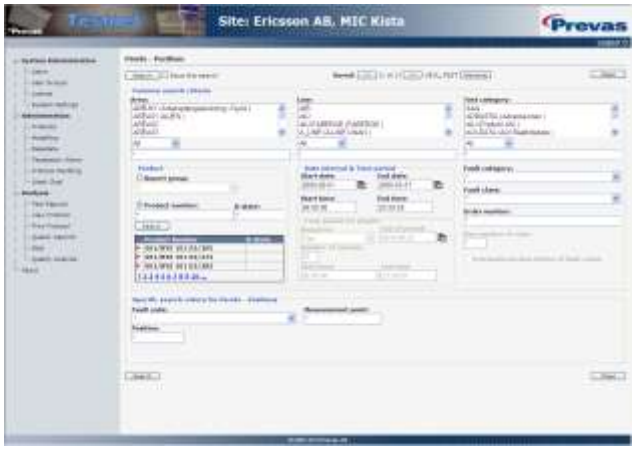
The line graph shows the cumulative fault frequency of the positions expressed as a percentage. The diagram above shows that 13% of the faults originate from position V10 and 7% from position R5 which means that 20% of all faults are caused by two positions. The exact values may be obtained from the table in the same report.

The information contained in the reports is obtained from the Quality database.

Create a Pareto – Positions Report

This is how you create a pareto positions report:

1. Click on Pareto - Positions in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover.. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify a fault category, a fault class and an order number to limit the search.
8. If you want to limit the search on **Fault code**, select it in the combo box. If you keep the * all fault codes will be used.
9. You can also supply a **Measurement point** to limit the search.
10. It is optional to limit the search even further by supplying value for **Position.**
11. Click on Search.

When the selection is completed, the spreadsheet will display the search result.

Save a Search

In pareto positions report it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

Select the search criteria you want just as in section The information contained in the reports is obtained from the Quality database.

4. Create a Pareto – Positions Report. When you have filled in all criteria select **Save this search** check box:
   Search Save this search Name:
   Supply a name for your search so you can load it later.
5. When you click Search the search is saved and can be loaded later.
6. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

4. If you have saved searches when you enter the report, there will be some additional buttons displayed:
   Saved: << (1 of 1) >> PO_Report Remove
5. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
6. Click on Search.

How to Delete a Saved Search

3. Make sure the criteria for the search you want to delete is displayed.
4. Click on Remove

Yield Graph

Description

The Yield graph provides information on the yield and the number of approved and tested products. The report is presented in the form of a graph for the selected report location and period.

The information is presented by report location and period as well as for the select product or report group. If you choose a report group, the results for every product in the report group will be combined and presented together.

The report is based on the test and inspection inputs that were made during the specified period.

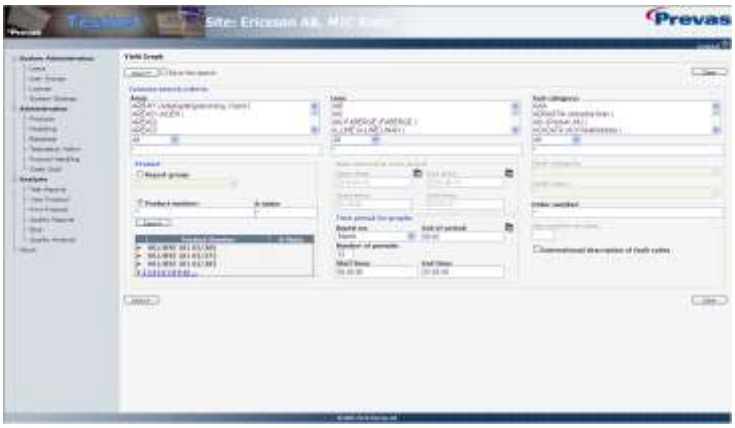
The report is based on "first-time yield"—that is, if an individual is tested several times at the same report location, it will not be included more than once in report.

The information contained in the reports is obtained from the Quality database.

Create a Yield Graph

This is how you create a yield graph:

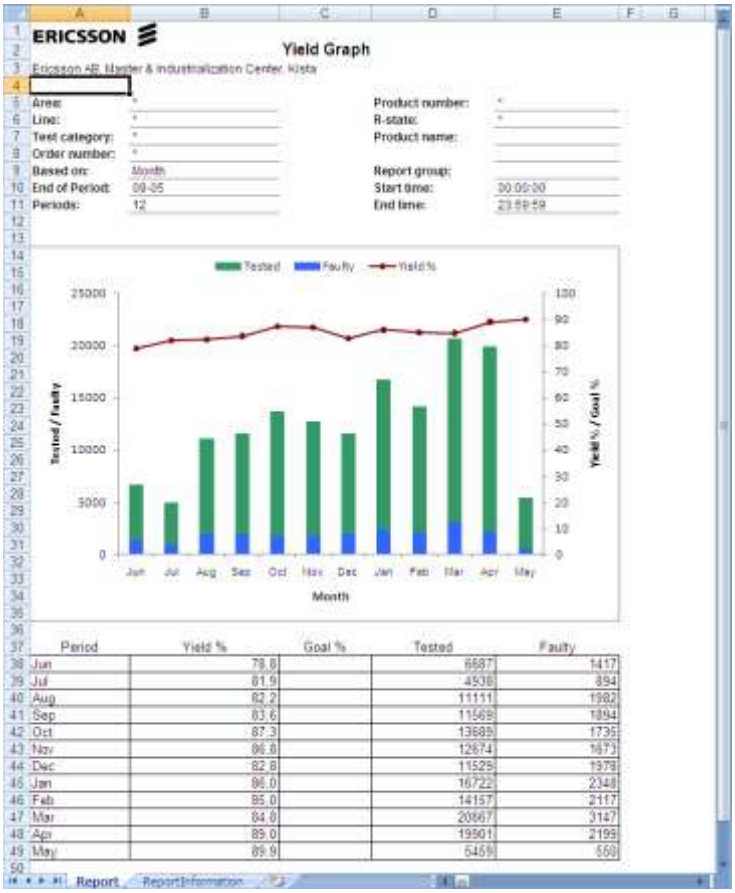
1. Click on Yield Graph in the Quality – Reports window, and then on Select.
   The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.

3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the end of the period of time you want the report to cover. Depending on which item selected in the **Based on** combo-box the formatting of **End of period** is different. You can click the calendar button and get help with selecting your date. The start and end times of each day can also be specified for the search.
7. You can also specify an order number to limit the search. If you want international description of fault codes check the check-box.
8. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



Save a Search

In Yield graph it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

4. Select the search criteria you want just as in section Create a Yield Graph. When you have filled in all criteria select **Save this search** check box:

Supply a name for your search so you can load it later.

5. When you click Search the search is saved and can be loaded later.
6. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

4. If you have saved searches when you enter the report, there will be some additional buttons displayed:

5. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
6. Click on Search.

How to Delete a Saved Search

3. Make sure the criteria for the search you want to delete is displayed.
4. Click on Remove.

Yield Report (Products)

Description

The Yield report (products) provides information on the yield and the number of approved and tested products. The results are presented for every product for a selected report location and period. The yield is presented in an ascending order as a top 10 list; that is, the worst yield first. This makes it possible to compare various report locations.

The report can also provide information on process reliability, which measures the likelihood of a product or report group passing every chosen test on a line.

Example: A product passes three test locations as it is manufactured on the line. The yield for each respective test is 90%, 80% and 90%. Thus, process reliability is: 0.9 x 0.8 x 0.9 = 0.648 which is 64.8%.

The information is presented for every product or report group for a given period. If you choose a report group, the results for the products will be combined and presented together. Every report location that a selected product has passed (or one or more products from a report group) will be included in the report.

To view the process reliability values, you must choose a specific area and line along with the test categories that interest you.

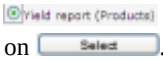
The report is based on the test and inspection inputs that were made during the period specified.

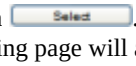
The report is based on "first-time yield"—that is, if an individual is tested several times at the same report location, it will not be included more than once in report. The total of tested and rejected in the report header is all tests not only first-time tests.

The information contained in the reports is obtained from the Quality database.

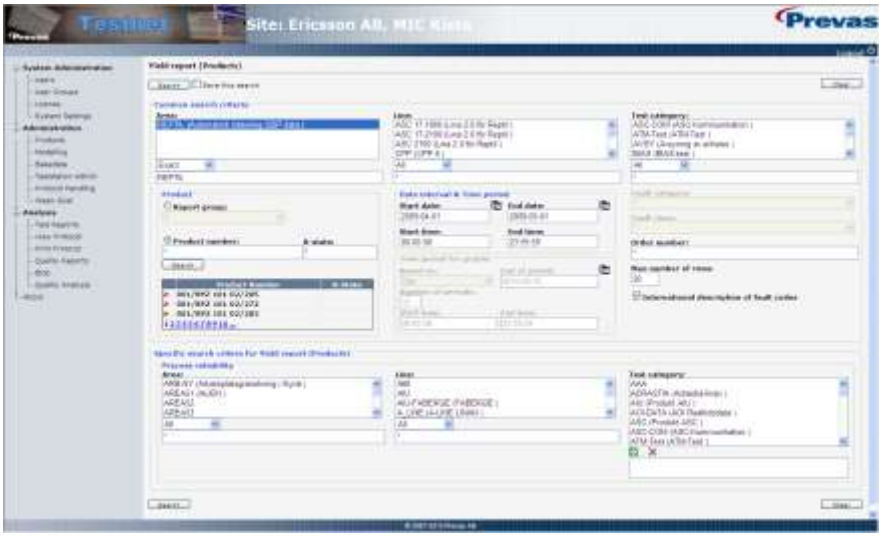
Create a Yield Report (Products)

This is how you create a yield report (products):

1. Click on 

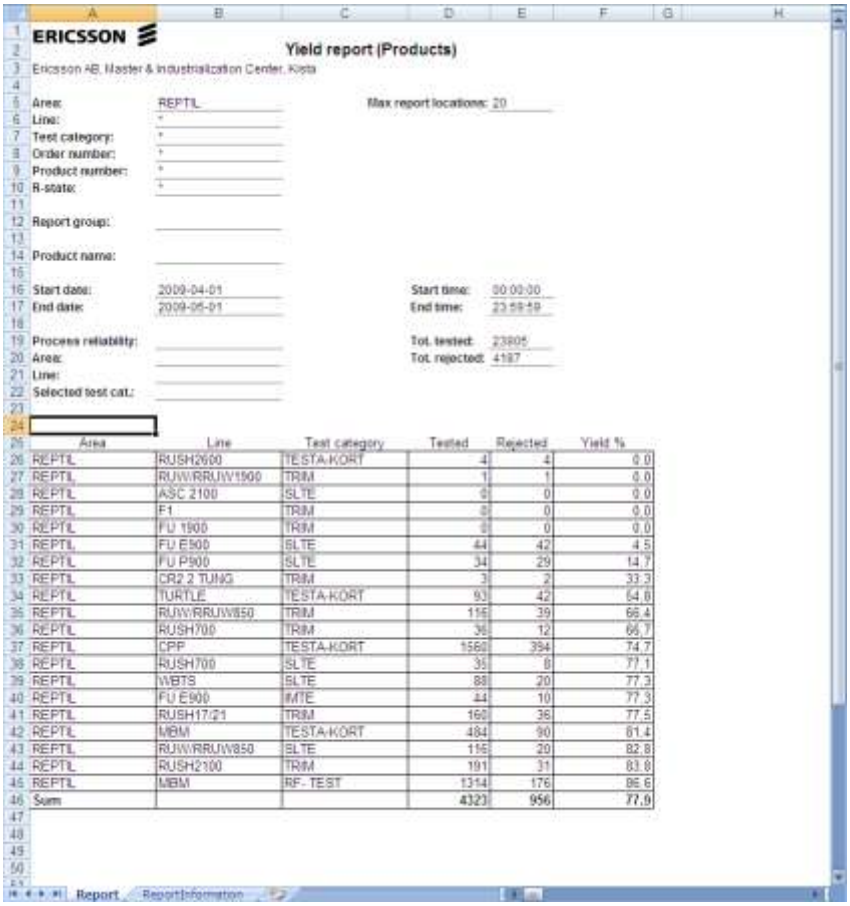
in the Quality – Reports window, and then on 

.
The following page will appear.



2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.
3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. You can also if you want limit the search on product or report group by selecting the wanted setting in **Product** frame.
6. Enter the period of time you want the report to cover. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
7. You can also specify an order number and max number of rows to limit the search. If you want international description of fault codes check the check-box.
8. Enter the **Area** and **Line**.
9. Enter a **Test category**.
10. Add the test category to the bottom list by clicking on .
11. Repeat step 9 and 10 for the desired number of test categories.
12. To remove a test category, select it in the list and click on .
13. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



ERICSSON

Yield report (Products)

Ericsson AB, Master & Industrialization Center, Kista

Area: REPTIL
Line: *
Test category: *
Order number: *
Product number: *
R-state: *
Report group:
Product name:
Start date: 2009-04-01
End date: 2009-05-01
Max report locations: 20
Start time: 00:00:00
End time: 23:59:59
Process reliability:
Area:
Line:
Selected test cat.:
Tot. tested: 23805
Tot. rejected: 4187

Area	Line	Test category	Tested	Rejected	Yield %
REPTIL	RUSH2600	TESTA-KORT	4	4	0.0
REPTIL	RUW/RRU/V1900	TRIM	1	1	0.0
REPTIL	ASC 2100	SLTE	0	0	0.0
REPTIL	F1	TRIM	0	0	0.0
REPTIL	FU 1900	TRIM	0	0	0.0
REPTIL	FU E500	SLTE	44	42	4.5
REPTIL	FU P900	SLTE	34	29	14.7
REPTIL	CR2 2 TUNG	TRIM	3	2	33.3
REPTIL	TURTLE	TESTA-KORT	93	42	54.8
REPTIL	RUW/RRU/W850	TRIM	115	39	66.4
REPTIL	RUSH700	TRIM	36	12	66.7
REPTIL	CPP	TESTA-KORT	1568	394	74.7
REPTIL	RUSH700	SLTE	35	8	77.1
REPTIL	WBTS	SLTE	88	20	77.3
REPTIL	FU E900	IMTE	44	10	77.3
REPTIL	RUSH17/21	TRIM	160	36	77.5
REPTIL	MBM	TESTA-KORT	484	90	81.4
REPTIL	RUW/RRU/W850	SLTE	116	20	82.8
REPTIL	RUSH2100	TRIM	191	31	83.8
REPTIL	MBM	RF-TEST	1314	176	86.6
Sum			4323	956	77.9

Report ReportInformation

Save a Search

In Yield Report (Products) it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Yield Report (Products). When you have filled in all criteria select **Save this search** check box:

   Search Save this search Name:

   Supply a name for your search so you can load it later.
2. When you click Search the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

   Saved: << (1 of 1) >> PO_Rep01 Remove
2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on Search.

How to Delete a Saved Search

1. Make sure the criteria for the search you want to delete is displayed.

2. Click on Remove.

Yield Report (Report Locations)

Description

The yield report (report locations) gives information on the yield and on the number of approved and tested products. The yield is reported in ascending order as a top-ten list, that is, the worst yield is displayed first.

The information is presented by product, pre-selected report location and period. The reports are based on the test and inspection inputs that were made during the selected period.

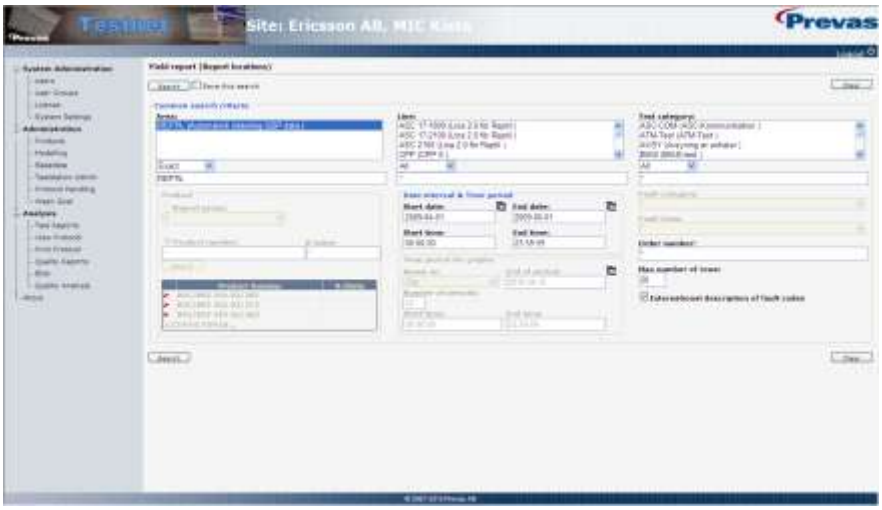
The report is based on "first-time yield"—that is, if an individual is tested several times at the same report location, it will not be included more than once in report. The total of tested and rejected in the report header is all tests not only first-time tests.

The information contained in the reports is obtained from the Quality database.

Create a Yield Report (Report Locations)

This is how you create a yield report (report locations):

1. Click on Yield report (Report locations) in the Quality – Reports window, and then on Select.
   The following page will appear.

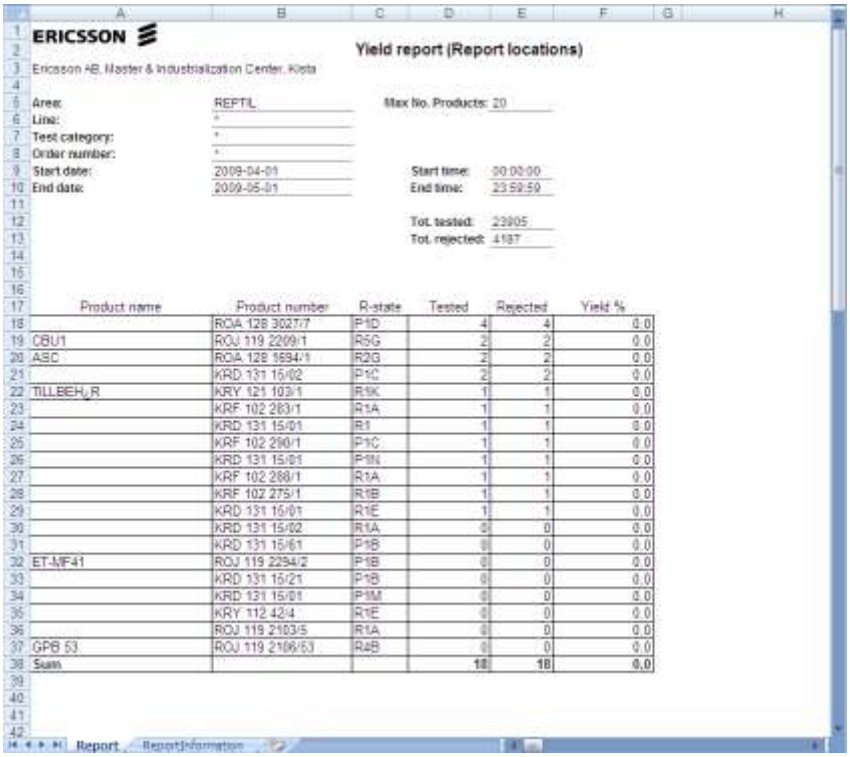


2. There are three ways you can search for an **Area**. If you click in the list of available areas the selected area will appear in the area field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the area, for

example AREA5. You can also let the area combo display the option **"All"** and instead limit the search in other ways.

3. The **Line** search works just as for area.
4. Select the **Test Category** if you want to limit your search on the test category just as for area and line.
5. Enter the period of time you want the report to cover. You can click the calendar buttons and get help with selecting your dates. The start and end times of each day can also be specified for the search.
6. You can also specify an order number and max number of rows to limit the search. If you want international description of fault codes check the check-box.
7. Click on Search.

When the selection is completed, the spreadsheet will display the search result.



ERICSSON

Yield report (Report locations)

Ericsson AB, Master & Industrialization Center, Kista

Area:	REPTIL
Line:	*
Test category:	*
Order number:	*
Start date:	2009-04-01
End date:	2009-06-01

Max No. Products: 20

Start time: 00:00:00
End time: 23:59:59

Tot. tested: 23905
Tot. rejected: 4187

Product name	Product number	R-state	Tested	Rejected	Yield %
	ROA 128 3027/7	P1D	4	4	0.0
CBU1	ROJ 119 2209/1	R5G	2	2	0.0
ASC	ROA 128 3594/1	R2G	2	2	0.0
	KRD 131 15/02	P1C	2	2	0.0
TILLBEHÖR	KRY 121 103/1	R1K	1	1	0.0
	KRF 102 283/1	R1A	1	1	0.0
	KRD 131 15/01	R1	1	1	0.0
	KRF 102 290/1	P1C	1	1	0.0
	KRD 131 15/01	P1N	1	1	0.0
	KRF 102 288/1	R1A	1	1	0.0
	KRF 102 275/1	R1B	1	1	0.0
	KRD 131 15/01	R1E	1	1	0.0
	KRD 131 15/02	R1A	0	0	0.0
	KRD 131 15/61	P1B	0	0	0.0
ET-MF41	ROJ 119 2294/2	P1B	0	0	0.0
	KRD 131 15/21	P1B	0	0	0.0
	KRD 131 15/01	P1M	0	0	0.0
	KRY 112 42/4	R1E	0	0	0.0
	ROJ 119 2103/5	R1A	0	0	0.0
GPB 53	ROJ 119 2106/53	R4B	0	0	0.0
Sum			18	18	0.0

Report ReportInformation

Tot. tested: The total number of tested or inspected individuals. The same individual may be counted more than once if it has been tested more than one time.

Tot. rejected: The total number of faulty individuals from test or inspection. The same individual may be counted more than once if it has been tested or inspected more than one time.

Table data: The table can be based on individual data or batch data.
If individual data is used, each individual will be counted one time only. The yield shown in the table will be the first-time yield.
If the table is based on batch data, each individual may be counted more than once. The yield shown in the table will be a total yield.

Sum: The last row of the table contains two sums for the **Tested** and **Rejected** columns. These sums will not correspond to the previously mentioned **Tot. tested** and **Tot. rejected** values (see **Table data**, **Tot. tested** and **Tot. rejected** earlier).

In the sum row, you can also find the **Average yield:** This yield is based on the data from the table in the report. Each individual will be counted only once if the table is based on individual data. Even if the individual has been tested or inspected more than once.
If the table is based on batch data, the yield will be based on individuals that may be reported more than once.

Save a Search

In Yield report (Report Locations) it is possible to save a search. One reason for saving your own search could be, for example, that you are interested in following up certain area. You can specify this area in a search, and each time you need reports for these criteria, just use the saved search.

How to Save a Search

1. Select the search criteria you want just as in section Create a Yield Report (Report Locations). When you have filled in all criteria select **Save this search** check box:

   Supply a name for your search so you can load it later.
2. When you click

the search is saved and can be loaded later.
3. Repeat steps 1-2 for each selection criteria you want to save.

How to Re-use a Saved Search

1. If you have saved searches when you enter the report, there will be some additional buttons displayed:

2. Navigate through the saved searches by clicking the **[<<]** and **[>>]** buttons. Make sure your wanted search criterion is displayed.
3. Click on

.

How to Delete a Saved Search

3. Make sure the criteria for the search you want to delete is displayed.
4. Click on

.

Blob

Description

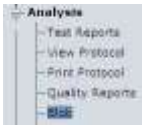
The blob tool enables you to search for blob files stored together with protocols in Testnet database.

Only protocols that have blob files will be visible in this tool.

How to Search for Blob Files

This is how you search for blob files:

1. Select menu option Blob.



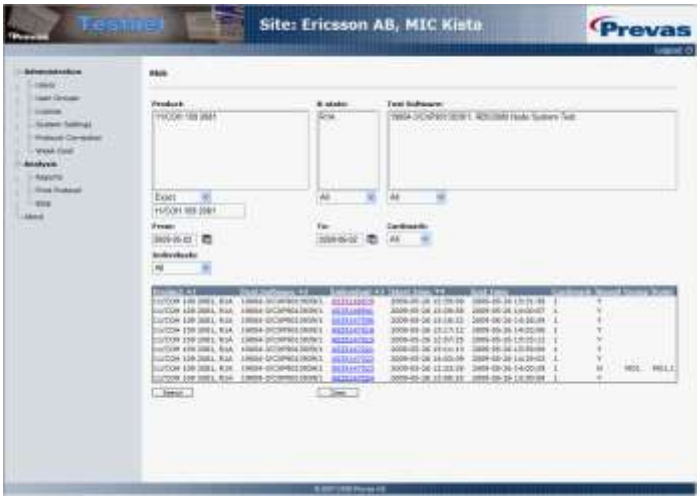
The following page will appear.

2. There are three ways you can search for a **Product**. If you click in the list of available products the selected product will appear in the product number field and the combo box will display **"Exact"**. You can also select **"Starting with"** in the combo box and supply the beginning of the product number, for example ROA. You can also let the product combo display the option **"All"** and instead limit the search in other ways.
3. The **R-state** search works just as for product.

4. Select the **Test Software** if you want to limit your search on the software just as for product and R-state.
5. Enter the period of time you want the blob. The year should be entered first, followed by month and then day (YYYY-MM-DD).
   For example, the 23rd of March, 2008 will be entered like this: 2008-03-23. You can also click the calendar button and get help with selecting your date.
6. Select whether the search criteria should include all cardmarks (**All**), exclude cardmarks (**Without**) or include a specific cardmark (**Specific**).

   Note: If you choose **Specific** you have to enter a list of maximum 40 cardmarks. For example, ABX1 will include cardmarks A, B, X and 1 in the search.
7. You can choose to enter a specific serial number, by selecting **"Exact"**. You can also select **"Starting with"** in the combo box for Individuals and supply the beginning of the serial number, for example AE5.

The search result is displayed in the table below the search criteria:



Test Details

To view details about each test in table just click the serial number in the table. Details about the test and the corresponding blobs are displayed.

Some general information about the test is displayed and all blobs are displayed as links below the table.

If you click the link different things can happen depending on the file type, for example if it is a zip file you will be asked if you want to save the file or open it. If it is a text file it might open in notepad.

Quality Analysis

Description

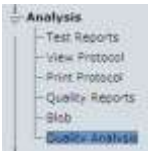
In the Quality Analysis tool you can analyse some of the information stored in Quality database.

By using the Quality Analysis function, you can access information directly in the tables in the database. The analysis function is used for querying information that cannot otherwise be obtained through various standard reports. You choose the tables and columns you want to look at when you specify the search criteria.

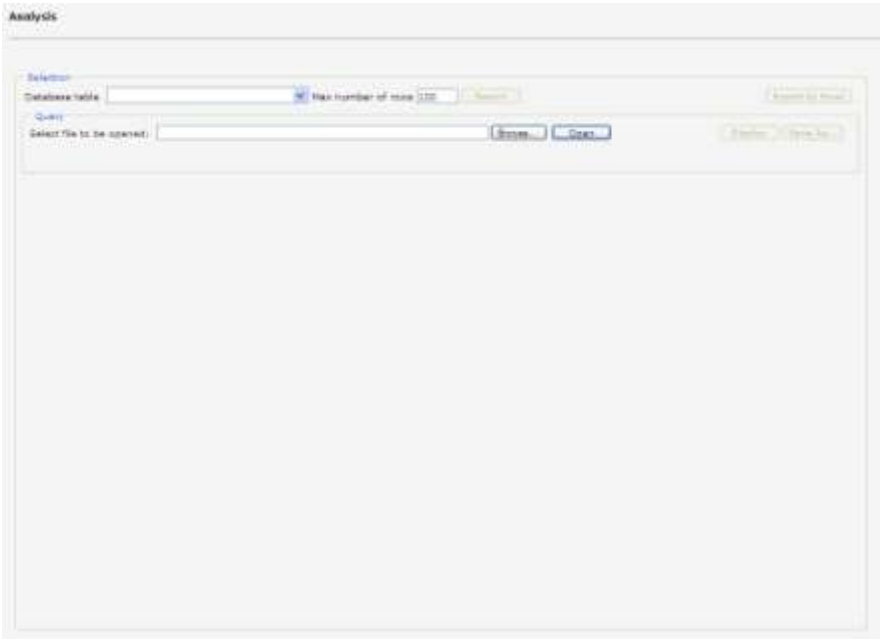
How to use Quality Analysis

This is how to activate the **Analysis** tab:

1. Click on **Quality Analysis** in the main menu



Then the Analysis page is opened:



Tables

The tables and views available in the **Analysis** tab are described below. Views are two or more tables that have been combined.

There are 6 tables altogether:

- Control_Data
- Controlled_Unit
- Detected_Symptom_of_Fault
- Cause_of_Fault
- Affected_Product
- Area

Control_Data

The **Control_Data** table presents data that is entered through test and inspection inputs. Each row in the table corresponds to a test or inspection input reported in Testnet.

The table contains the following columns:

Column	Comments
Control Identity	A running number that is assigned by database
Time of Inspection	Time when the inspection input was entered
Area Identity	Area Identity in the Area table
Line	Production line
Test Category	-
Product number	-
R-state	-
Number of Manufactured	-
Number of Inspected	-
Number of Rejected	-
Order number	-
User-ID	Signature of the person that was logged in when the input was done

Controlled_Unit

The **Controlled_Unit** table stores data on the faulty products that were found during a test; that is, it contains data from test inputs. Each ID-number entered from the test input generates a row in the table. Inspection inputs also generate a row in the table, but this information is only used internally.

The table contains the following columns:

Column	Comments
Control Identity	A running number assigned by database

ID-number	For inspection input, this field contains the string "INSPECTION INPUT"
Comment (ID)	-
Test#[	Shows how many times an individual has been tested at a certain report location
Result	The result field can accept one of two values: "F" or "T". "F" represents a faulty individual "T" stands for passed individual.
Inspected by	-
Assembled by	-

Detected_Symptom_of_Fault

The **Detected_Symptom_of_Fault** table stores data for each inspection or fault input made in Testnet:

The table contains the following columns:

Column	Comments
Control Identity	A running number assigned by database
ID-number	For an inspection input, this field contains the string "INSPECTION INPUT"
Measuring Point	-
Measuring group	-

Cause_of_Fault

The **Cause_of_Fault** table stores data for each inspection or fault input made in Testnet:

The table contains the following columns:

Column	Comments
Fault Identity	A running number assigned by database
Time Fault Input	Time when the fault input was entered
Control Identity	A running number assigned by database
ID-number	ID-number for the tested product
Fault Code	-
Fault Class	-
Product Number	Product number of the faulty component
R-state	R-state of the faulty component
Manufacturer	Manufacturer of the faulty component
Action Code	-
Measurement Point	-
Number of Faults	Number of faults of the same type reported at a certain position

Comment(Fault)	-
User-ID	Identity of the person that was logged in when the input was done
Troubleshoot Time	Time in minutes it took to troubleshoot a fault at a certain position
Repair time	Time in minutes it took to repair a fault at a certain position
Price	The price of the component
ID faulty product	The serial number of the faulty product
Batch number	The batch number of the faulty product
Action status	The actual status of the action P, S: Successful F, R: Failed N: Unverified
Alarm Code	Alarm Code used in Reptile in conjunction with action code 10 (Exchange of ID-marked unit)

Affected_Product

The **Affected_Product** table presents data on every product that is affected by the faults stored in the cause of fault table.

The table contains the following columns:

Column	Comments
Product Number	-
R-state	-
Position	-
Fault Identity	A running number assigned by database
Product State	State of product: F: Faulty T: Tested

Area

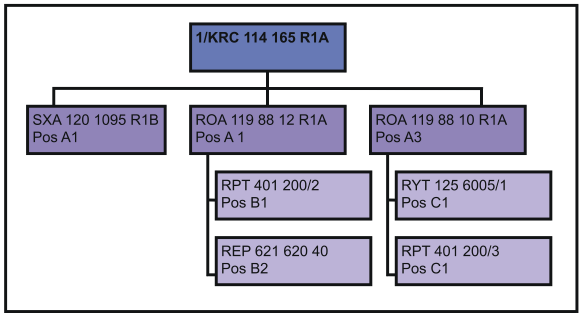
The **Area** table presents information on the areas that have been input into the database. Each area is automatically assigned an ID that is used in the other tables.

The table contains the following columns:

Column	Comments
Area Identity	A running number that is assigned by database
Area Name	The name of the area
Status	Whether the area is activated or not
Description	Written description of the area

Example

The example below shows how information entered during inspection, test and fault input is presented in the various tables. The product structure used in the example is as follows:



Product structure

Inspection Input:

The following data was input:

Report Location

Area:	SMD
Line:	GSM
Test Category:	Visual Inspection

Inspected Product

Product no:	1/KRC 114 165
R-state:	R1A

Faulty Product

Product no:	1/KRC 114 165
R-state:	R1A
Number inspected:	10
Number rejected:	2
Number produced:	10
Order no:	323

Fault code	Fault class	Position	Action	Number of faults	Comments (fault)
12A	C	A1	U	1	Check carefully
13C	C	A2	U	3	Might be the cable

After the data above has been entered and **[Save]** has been pressed, the following entries are added to the tables:

Table 1: Control_Data

Control Identity	Time of Inspection	Area Identity	Line	Test Category	Product Number	R-state	Number of Manufactured	Number of Inspected	Number of Rejected	Batch/Order number	User-ID
232	2000-03-27	3	GSM-LINE	INSPEC-TION	1/KRC 114 165	R1A	10	10	2	323	ERITEST

Table 2: Controlled_Unit

Control Identity	ID-number	Comment (ID)	Test#	Result	Inspected by	Assembled by
232	A24F0440H3		1	F		

Table 3: Cause_of_Fault

Fault Identity	Time Fault Input	Control Identity	ID-number	Fault Code	Fault Class	Product number	R-state	Manuf-acturer	Cause Code	Measurement Point	Number of Faults	Comment (fault)	User-ID	Repair Time	Price
543	2000-03-27 12:03.54	232	A241052465	12A	C	SXA 120 1095	R1B		U		1	Check carefully	ERITEST		
544	2000-03-27 12:03.55	232	A241052461	13C	C	ROA 119 8812	R1A		U		3	Might be the cable	ERITEST		

Table 4: Affected_Product

Product Number	R-State	Position	Fault Identity
1/KRC 114 165	R1A	A1	543
1/KRC 114 165	R1A	A2	544

Inspection Input data

Test Input:

The following data was input:

Report Location

Area:	SMD
Line:	GSM
Test Category:	Final test

Tested Product

Product number:	1/KRC 114 165
R-state	R1A
Number Inspected:	20
Number rejected:	2
Number manufactured:	20
Order no:	401

Faulty ID-numbers

A8756	No measuring point specified
Comments (ID)	Faulty resistor
A8762	2 measuring points: BA, BL
No comments	

Faulty input:

Faulty Product

Product number: 1/KRC 114 165

R-state: R1A

ID-no	Measuring point	Fault code	Fault Class	Position	ID faulty product	Action	Comments (ID)	Number of faults
A8762	BA	12A	B	A1	A1	U	A3333	1
A8762	BL	12C	B	A2	A2	U	A5656	3
A8756		13C	C	A3	A3	U	A6767	2

After the data above has been entered and **[Save]** has been pressed, the following entries are added to the tables:

Table 5: Control_Data

Control Identity	Time of Inspection	Area Identity	Line	Test Category	Product Number	R-state	Number of Manufactured	Number of Inspected	Number of Rejected	Batch/Order number	User-ID
245	2000-03-27	3	GSM-LINA	AVSYNING	1/KRC 114 165	R1A	20	20	2	401	ERITEST

Table 6: Controlled_Unit

Control Identity	ID-number	Comment (ID)	Test#	Result	Inspected by	Assembled by
246	A24F0440H4	Faulty resistor	1	F		
246	A24F0440H4		1	F		

Table 7: Detected_Symptom_of_Fault

Control Identity	ID number	Measuring Point	Measuring group
246	A240163713	BA	MG123
246	A240163714	BL	MG123

Table 8: Cause_of_Fault

Fault Identity	Time Fault Input	Control Identity	ID-number	Fault Code	Fault Class	Product number	R-state	Manuf-acturer	Cause Code	Measurement Point	Number of Faults	Comment (fault)	User-ID	Repair Time	Price
543	2000-03-27 12:03.54	232	A241052465	12A	B	SXA 120 1095	R1B		U		1	A3333	ERITEST		
544	2000-03-27 12:03.55	232	A241052461	12C	B	ROA 119 8812	R1A		U		3	A5656	ERITEST		
545	2000-03-27 12:03.55		A241052463	13C	C	ROA 119 8810	R1A		U		2	A6767	ERITEST		

Table 9: Affected_Product

Product Number	R-State	Position	Fault Identity
1/KRC 114 165	R1A	A1	543
1/KRC 114 165	R1A	A2	544
1/KRC 114 165	R1A	A3	545

Test Input data

Views

There are five views available in Analysis tool. Instead of separately opening two tables, you can join them in one view, which makes them easier to look at.

There are 5 views altogether:

- Control_View
- Fault_View
- Control_Fault_View
- Control_Cause_of_Fault_View
- Control_Cause_of_Fault_Time_View

Control_View

The **Control_view** is a combination of the **Control_Data** table and the **Controlled_Unit** table, as illustrated above. The view presents data from control- and test inputs in which faulty individuals have been identified.

Column	Comments
Control Identity	A running number assigned by the database, one for each test and inspection input.
Area Identity	A number corresponding to an area (see the table area)
Line	The line where the tests have been done
Test Category	The test category where the test was done
Product Number	Product number for the tested product
R-state	R-state for the tested product
Time of Inspection	Date and time where the input was done
Number of Manufactured	The number of manufactured products registered at the input
Number of Inspected	The number of tested products registered at the input
Number of Rejected	The number of rejected products registered at the input
Order number	Free text field
User-ID	Identity of the person that was logged in when the input was done
ID-number	ID-number registered as faulty at a test input. For inspection input, this field contains the string "INSPECTION INPUT"
Comment (ID)	Free text field available in the Test input tab
Test#	Displays how many times an ID-number has been tested at a report location
Result	The result field can accept one of two values: "F" or "T". "F" represents a faulty individual, whereas "T" stands for tested individual.
Inspected by	The identity of the inspector.
Assembled by	The identity of the assembler.

Fault_View

The **Fault_View** is a combination of the **Cause_of_Fault** table and the **Affected_Product** table, as illustrated above. The view shows data from

control-, test- and faulty inputs. For a test input to be shown in the table, it must end with a fault input.

Column	Comments
Fault Identity	Fault ID—a running number assigned by the database
Time Fault Input	Time and date when the faulty input was made
Control Identity	Inspection ID—a running number assigned by the database
ID-number	ID-number of the tested product
Fault Code	Fault code entered at fault input
Fault Class	Fault class linked to the fault code
Product No. (Component)	Product number of the faulty component
R-state (component)	R-state of the faulty component
Manufacturer	Manufacturer of the faulty component
Action Code	Action code entered for actual fault code
Measurement group	Measuring group for the point entered at the input
Measurement Point	Measuring point entered at the input
Number of Faults	Number of faults entered for the actual fault code and position
Comment(Fault)	Text field
User-ID	Identity of the person that was logged in when the input was done
Troubleshoot Time	Time in minutes it took to troubleshoot a fault at a certain position
Repair Time	Time in minutes it took to repair a fault at a certain position
Product no. (affected product)	Product numbers for products place between the tested product and the faulty product (including the tested and faulty product). Each affected product for a fault input generates a row in this table, but with the same fault and control identity
R-state (affected product)	R-state for the affected product
Position (affected product)	Position for the affected product
Product State (affected product)	State of product: F: Faulty T: Tested
ID faulty product	The serial number of the faulty product
Batch number	The batch number of the faulty product
Action status	The actual status of the action P, S: Successful F, R: Failed N: Unverified
Alarm Code	Alarm Code used in Reptile in conjunction with Action Code 10 (Exchange of ID-marked unit)

Control_Fault_View

The **Control_Fault_View** is a combination of the **Cause_of_Fault** table, the **Affected_Product** table, the **Controlled_Unit** table and the **Control_Data** table, as illustrated above. For inputs to be displayed in the table, the faults must have been entered.

Column	Comments
Control Identity	A running number assigned by the database, one for each test and inspection input
Area Identity	A number corresponding to an area (see the table area)
Line	The line where the test was made
Test Category	The test category where the test was done
Product no. (Inspected Product)	Product number for the tested product
R-state (Inspected Product)	R-state for the tested product
Time of Inspection	Date and time when the inspection was done
Number of Manufactured	The number of manufactured products registered at the input
Number of Inspected	The number of tested products registered at the input
Number of Rejected	The number of rejected products registered at the input
Order number	Free text field, to be used optionally
User-ID	Identity of the person that was logged in when the input was done
ID-number	ID-number registered as faulty at a Test input. For inspection input, this field contains the string "INSPECTION INPUT"
Comment (ID)	Free text fields available in the **Test input** tab. Can be used for optional text
Test#	Displays how many times an ID-number has been tested at a report location
Result	The result field can accept one of two values, "F" or "T": "F" represents a faulty individual "T" stands for tested and passed individual
Inspected by	The identity of the inspector
Assembled by	The identity of the assembler.
Fault Identity	A running number assigned by the database for every Fault code and Position reported
Time Fault Input	Date and time of the fault input
FID Comment	
Fault Input User	

Fault Code	Fault code entered at fault input
Fault Class	Fault class linked to the entered fault code
Product no. (Component)	Product number of the product placed on the position of the fault. The product must not necessarily be a component, that is, it can have subordinate products
R-state (Component)	R-state of the product placed on the position of the fault
Manufacturer	Manufacturer of the faulty product
Action Code	Action taken to correct the entered fault code
Measurement group	Measurement group for the point entered at test input
Measurement Point	Measurement point entered at test input
Number of Faults	Number of faults found for entered position and fault code
Troubleshoot Time	Time in minutes it took to troubleshoot a fault at a certain position
Repair Time	Time in minutes it took to repair a fault at a certain position
Product no. (affected product)	Product numbers for products place between the tested product and the faulty product (including the tested and faulty product). Each affected product for a fault input generates a row in this table, but with the same fault and control identity
R-state (affected product)	R-state for the affected product
Position (affected product)	Position for the affected product
Product State (affected product)	State of product: F: Faulty T: Tested
Price	The price of the component
ID faulty product	The serial number of the faulty product
Batch number	The batch number of the faulty product
Action status	The actual status of the action P, S: Successful F, R: Failed N: Unverified
Alarm Code	Alarm Code used in Reptile in conjunction with Action Code 10 (Exchange of ID-marked unit)

Control_Cause_of_Fault_View

The **Control_Cause_of_Fault_View** is a combination of the **Cause_of_Fault** table, the **Affected_Product** table and the **Control_Data** table. This table shows data from control, test and fault inputs where faulty individuals are indicated.

Column	Comments

Control Identity	A running number assigned by the database, one for each test and inspection input
Area Identity	A number corresponding to an area (see the table Area)
Line	The line where the test has been done
Test Category	The test category where the test was done
Product No. (Inspected Product)	Product number for the tested product
R-state (Inspected Product)	R-state for the tested product
Time of Inspection	Date and time when the inspection was done
Number of Manufactured	The number of manufactured products registered at the input
Number of Inspected	The number of tested products registered at the input
Number of Rejected	The number of rejected products registered at the input
Order number	Free text field, to be used optionally
User-ID	Identity of the person that was logged in when the input was done
Fault Identity	Running number assigned by the database each time a new fault code is entered
Time Fault Input	Date and time when the input was made
Comment(Fault)	Free text field for optional text. Entered in the Fault input window (Comments (ID))
User-ID	Identity of the person that was logged in when the input was done
ID-number	ID-number registered as faulty when input. For inspection input, this field contains the string "INSPECTION INPUT"
Fault Code	Fault code entered at fault input
Fault Class	Fault class linked to the entered fault code
Product No. (Component)	Product number of the product placed on the position of the fault. The product must not necessarily be a component, that is, it can have subordinate products
R-state (Component)	R-state of the product placed on the position of the fault
Manufacturer	Manufacturer of the faulty product
Action Code	Action taken to correct the entered fault code
Measurement group	Measurement group for the point entered at test input
Measurement point	Measurement point entered at test input
Number of Faults	Number of faults found for entered position and fault code

Troubleshoot Time	Time in minutes it took to troubleshoot a fault at a certain position
Repair Time	Time in minutes it took to repair a fault at a certain position
Product No. (faulty product)	Product number of the faulty product, that is, the product that "owns" the position of the fault
R-state(faulty product)	R-state for the faulty product
Position	The position of the faulty product
Price	The price of the component
ID faulty product	The serial number of the faulty product
Batch number	The batch number of the faulty product
Action status	The actual status of the action P, S: Successful F, R: Failed N: Unverified
Alarm Code	Alarm Code used in Reptile in conjunction with Action Code 10 (Exchange of ID-marked unit)

Control_Cause_of_Fault_Time_View

The **Control_Cause_of_Fault_Time_View** is a combination of the **Cause_of_Fault** table, the **Affected_Product** table, the **Control_Data** table and the **Cause_of_Fault_Time** table. This table shows data from control, test and fault inputs where faulty individuals are indicated.

Column	Comments
Control Identity	A running number assigned by the database, one for each test and inspection input
Area Identity	A number corresponding to an area (see the table Area)
Line	The line where the test has been done
Test Category	The test category where the test was done
Product No. (Inspected Product)	Product number for the tested product
R-state (Inspected Product)	R-state for the tested product
Time of Inspection	Date and time when the inspection was done
Number of Manufactured	The number of manufactured products registered at the input
Number of Inspected	The number of tested products registered at the input
Number of Rejected	The number of rejected products registered at the input
Order number	Free text field, to be used optionally
Fault Identity	Running number assigned by the database each time a new fault code is entered
Time Fault Input	Date and time when the input was made

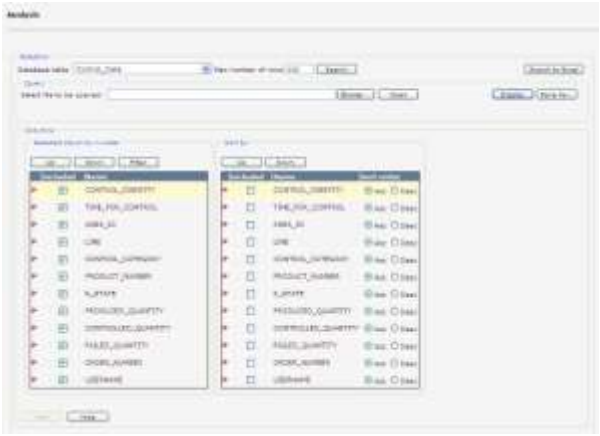
Comment(Fault)	Free text field for optional text. Entered in the Fault input window (Comments (ID))
User-ID	Identity of the person that was logged in when the input was done
ID-number	ID-number registered as faulty when input. For inspection input, this field contains the string "INSPECTION INPUT"
Fault Code	Fault code entered at fault input
Fault Class	Fault class linked to the entered fault code
Product No. (Component)	Product number of the product placed on the position of the fault. The product must not necessarily be a component, that is, it can have subordinate products
R-state (Component)	R-state of the product placed on the position of the fault
Manufacturer	Manufacturer of the faulty product
Action Code	Action taken to correct the entered fault code
Measurement group	Measurement group for the point entered at test input
Measurement point	Measurement point entered at test input
Number of Faults	Number of faults found for entered position and fault code
Troubleshoot Time	Time in minutes it took to troubleshoot a fault at a certain position
Repair Time	Time in minutes it took to repair a fault at a certain position
Product No. (faulty product)	Product number of the faulty product, that is, the product that "owns" the position of the fault
R-state(faulty product)	R-state for the faulty product
Position	The position of the faulty product
Price	The price of the component
ID faulty product	The serial number of the faulty product
Batch number	The batch number of the faulty product
Action status	The actual status of the action P, S: Successful F, R: Failed N: Unverified
Alarm Code	Alarm Code used in Reptile in conjunction with Action Code 10 (Exchange of ID-marked unit)
Fault Order	The order of the different fault times
Work Station ID	The identity of the work station where the fault input was made
Username	The username who made the fault input
User Profile	The users profile: P: Pretroubleshooter

	T: Troubleshooter R: Repairer
Time	The time the individual spent at the station

Perform an Analysis

The performance of an analysis is divided into several steps.

1. Choose the **Database table** by selecting an option in the drop-down-list containing the database tables and views. A new section will be opened and the possible columns are shown.



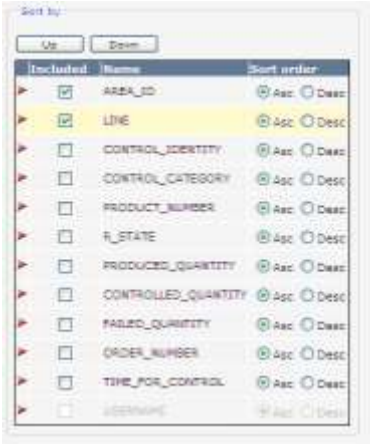
The columns section can be hidden and shown by clicking on **[Hide]** and **[View]**

2. In the left table (**Selected columns in order**) all columns in the selected database table is listed. Mark the columns that shall be included in the query. The order can be changed by selecting a row and clicking on **[Up]** or **[Down]**. The columns will be presented in the given order in the result.

Example:
TIME_FOR_CONTROL has been moved down and USERNAME has been excluded

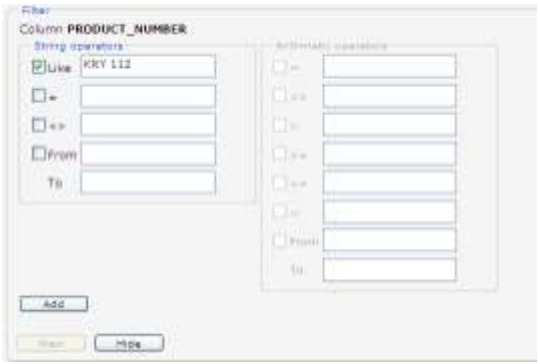
3. In the right table (**Sort by**) all columns in the selected database table is listed. Mark the columns that the data shall be sorted by in the query.

The order can be changed by selecting a row and clicking on **[Up]** or **[Down]**. Select if the data shall be sorted ascending or descending.



Example:
Data shall be sorted first by AREA_ID and within each area by LINE.

4. In the left table (**Selected columns in order**) it is possible to select a row to filter on. This is done by selecting the row and clicking on **[Filter]**. The filter section is opened.



The filter section can be hidden and shown by clicking **[Hide]** and **[View]**.

Enter the criteria and click on **[Add]**.

Note: If you want to use the date as a search criterion, you have to use ISO standard date format. The format is **YYYY-MM-DD hh:mm:ss**.

Added filters can be shown in a list-box in the filter section.

The filter can be removed by selecting it in the list-box and clicking on **[Remove]**.

5. At last max number of rows has to be filled in.
6. Click on **[Search]** and the query will be executed. The result will be presented in a table.

It is possible to open the filter dialog by double-clicking on a value in the table.

Export to Excel

It is possible to export a query to excel to make a report.

1. Make all the necessary selections to build a query.
2. Click on **[Export to Excel]** to export the query to Excel.
3. Excel is started and the query is run automatically and the result is presented as a report.

Displaying the query

It is possible to display the query.

1. Click on the **[Display]** button to open a list-box with the query.

The list-box can be hidden by clicking **[Hide]**. The list-box will not be updated automatically when changes are made to the query. Click **[Update]** to refresh the list-box.

Saving the query

It is possible to save the query.

1. Click on the **[Save as]** button the save the query.

Using a saved query

It is possible to use a saved query.

1. Click on the **[Browse]** button and choose the wanted file.
2. Click **[Open]** to use the query.

Products

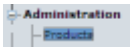
Description

All products that are reported on must be registered in the Quality database. The products are imported from Ericsson's product information management database (PRIM). It is recommended that every site sets up a PRIM subscription for the products. It is also possible to fetch products with Piwin. For more information about PRIMCOM and Piwin, see the System Administrators manual.

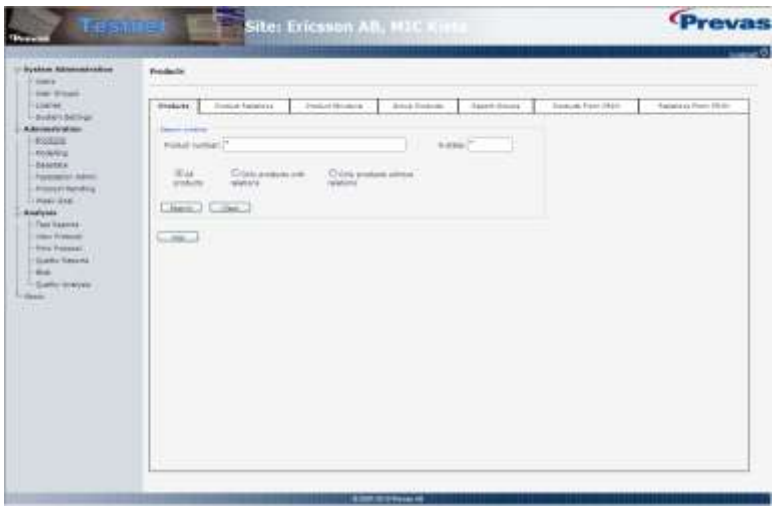
How to use Products

This is how to activate the **Products** page:

1. Click on **Products** in the main menu



Then the Products page is opened:



The **Products** folder contains seven different tabs:

- Products
- Product Relations
- Product Structure
- Group Products
- Report Groups
- Products from PRIM

- Relations from PRIM

Product Attributes

The concepts that are used in association with the product trade in quality are stated below:

Product Number

A number that, when combined with the R-state, gives a unique product identity. The product number is fetched from PRIM.

R-state

The R-state, or revision state , is fetched from PRIM. The R-state is increased each time the product is modified.

ID-number/Serial Number

An ID-number or serial number, which identifies each specific individual. One source of ID-numbers is Bartrack.

Product Name

A product name is an informal product designation that can be fetched from PRIM and entered manually.

Product Category

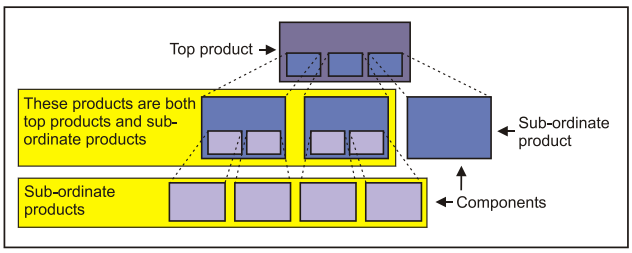
The code for a product category, which consists of two characters, provides information on the product type. Some examples of product categories are:

- **ML** which means material list
- **RF** which means physical product with R-state
- **KO** which means component.

Information on product categories is obtained from PRIM but this information is not used.

Product Structure

A product structure is a schematic drawing that describes how a product is assembled. The terms superordinate product, subordinate product and product relation are used for describing the structure.



Product structure

Superordinate Products

In a product structure, a superordinate product is a product that has another product located at one of its (subordinate) positions.

Subordinate Products

In a product structure, a subordinate product is a product that is located at a given position within another (superordinate) product.

Product Relation

A product relation defines the relation between a superordinate and a subordinate product. The relation is defined by the product number and R-state of the superordinate and subordinate products together with the position of the subordinate product.

Component

A component is a product with no subordinate products. Even if a product has actually got subordinate products, in reality it can be registered without subordinate products, and is then handled as a component within the system.

Products

The **Products** tab is used to add your own products or to see which products are defined in Quality database.

This is how to activate the **Products** tab:

1. Click on **Products** in the main menu

Retrieve Products

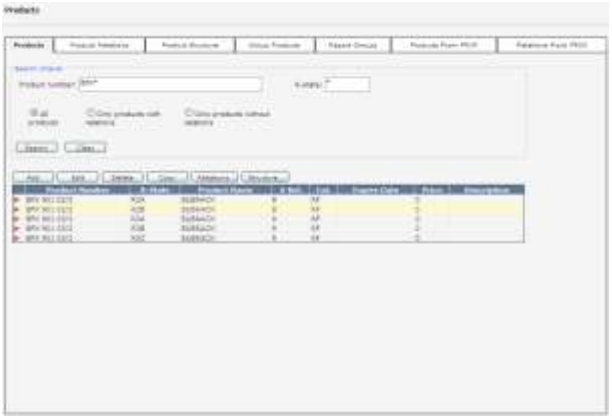
To retrieve information on one or more products:

1. Enter the **Product number** and **R-state** as search criteria.
2. Select one of these three alternatives. The choice you make will affect the time it takes to perform the search.

All Products	This alternative will select all products, with the number of relations for the products is calculated and shown in the **# Rel** field. If no relations exist, the field is left blank..
Only products without relations	This alternative will only select products that have a zero value in the **# Rel** field.
Only products with relations	This alternative will only select products that have a value other than zero in the **# Rel** field.

3. Click on **[Search]** to retrieve the product(s) that match the search criteria and the relation information.

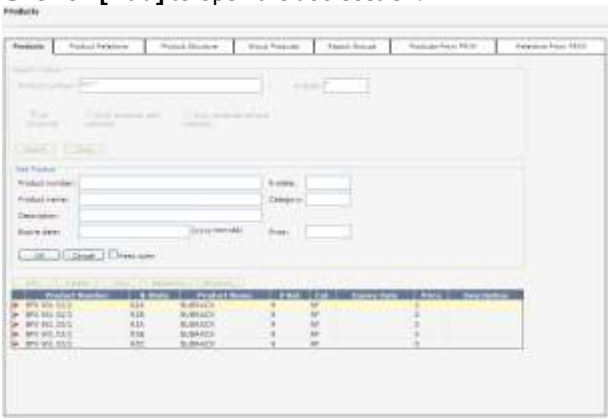
   Note: The maximum number of products that can be shown is 2000. If the result is more than 2000 products, an error message will be displayed asking you to refine your search.



Add a Product

To add a product:

1. Click on **[Add]** to open the add section.

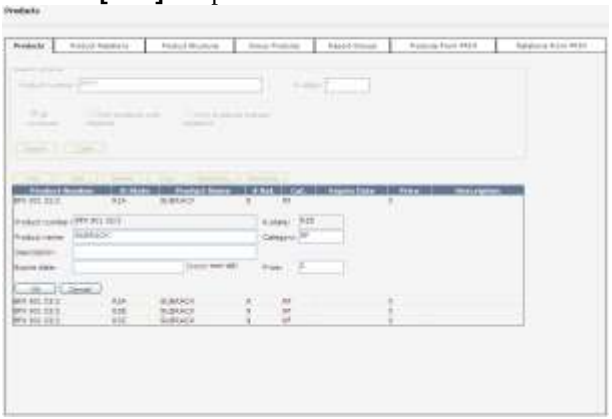


2. Enter the **Product number** and **R-state**.
3. If you wish, enter the **Product name**, **Description**, and **Product category**.
4. If you wish, enter an **Expire date** for the follow-up on manufacturers.
5. If you wish, enter a **Price** for the product.
6. Click on **[OK]** to add the product to the list. Click on **[Cancel]** to close the add section without saving.

Change a Product

To change a product:

1. Click on **[Edit]** to open the edit section.



2. If you wish, change the **Product name**, **Description**, and **Product category**.
4. If you wish, enter an **Expire date** for the follow-up on manufacturers.
5. If you wish, enter a **Price** for the product.
6. Click on **[OK]** to change the product. Click on **[Cancel]** to close the edit section without saving.

Delete a Product

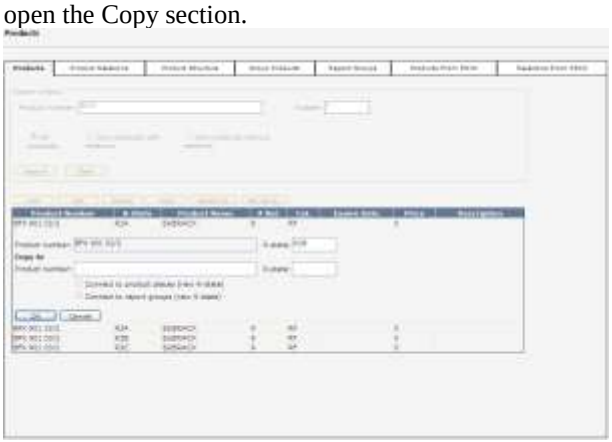
To delete a product:

1. Click on **[Search]** to fetch all products that match the search criteria defined in the fields.
2. Select the product you want to delete in the list.
3. Click on **[Delete]** to delete the product from database.

Copy a Product

To copy a product and its product structure:

1. Click on **[Search]** to fetch all products that match the search criteria defined in the fields.
2. Select the product you want to copy in the list. Click on **[Copy]** to open the Copy section.

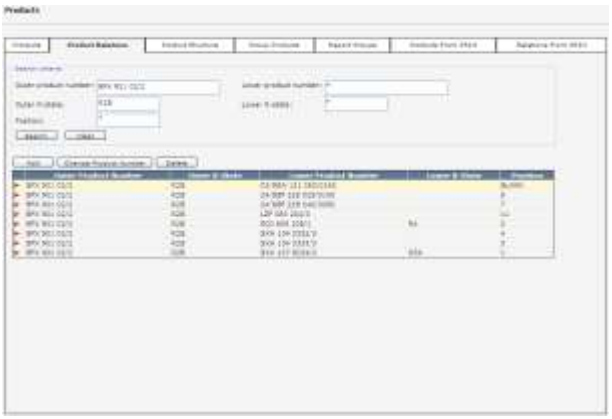


3. Enter the destination **Product number** and **R-state**.
4. If you have entered the same product number you can choose to connect to the same product places and report groups as the product you copy from.
5. Click on **[OK]** to change the product. Click on **[Cancel]** to close the edit section without saving.

View Relations

To view relations of a product:

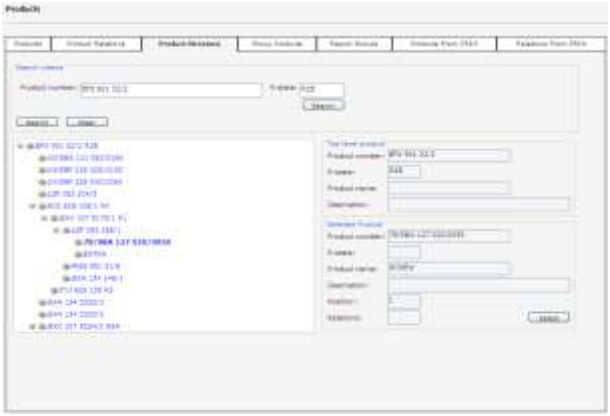
1. Click on **[Search]** to fetch all products that match the search criteria defined in the fields.
2. Select the product you want to view relations for in the list.
3. Click on **[Relations...]** to view the products relations.



View Structure

To view product structure of a product:

1. Click on **[Search]** to fetch all products that match the search criteria defined in the fields.
2. Select the product you want to view product structure for in the list.
3. Click on **[Structure...]** to view the product structure.



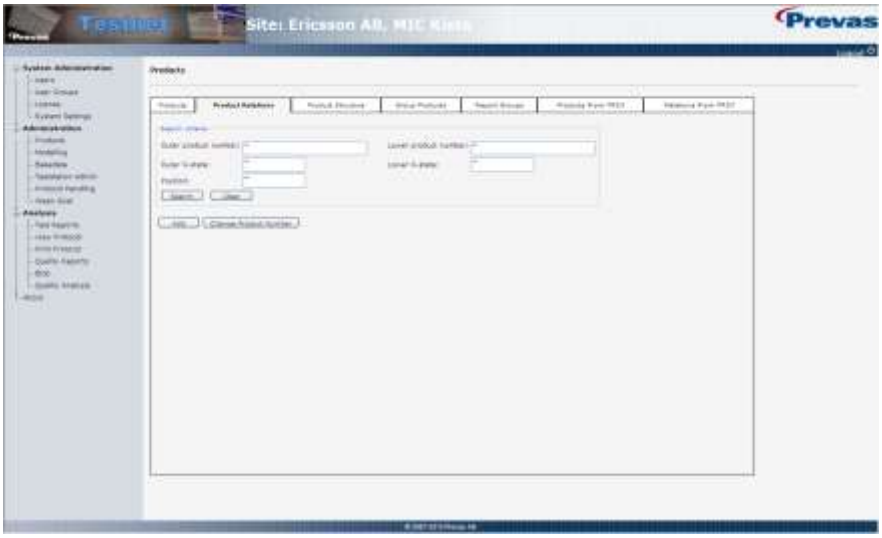
Product Relations

The **Product Relations** tab is used to add product relationships to the products or to see the product relationships that already exist. A product relation is the connection between one product and another. Several relations form a product structure.

This is how to activate the **Product Relations** tab:

1. Click on **Products** in the main menu.
2. Switch to the **Product Relations** tab.

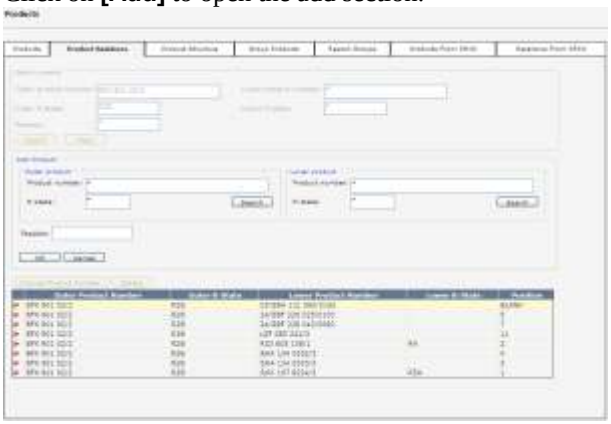
Note: It is also possible to reach the **Product Relations** tab from the **Products** tab. The selected product will be transferred to the **Product Relations** tab as a parent.



Add a Product Relation

To add a product relation:

1. Click on **[Add]** to open the add section.



2. Enter the **Product number**, **R-state** and **Position** of the product you want to have as a parent (outer product).
3. Enter the **Product number** and **R-state** of the product you want to have as a child (lower product).
4. Click on **[OK]** to add the product to the list. Click on **[Cancel]** to close the add section without saving.

Delete a Product Relation

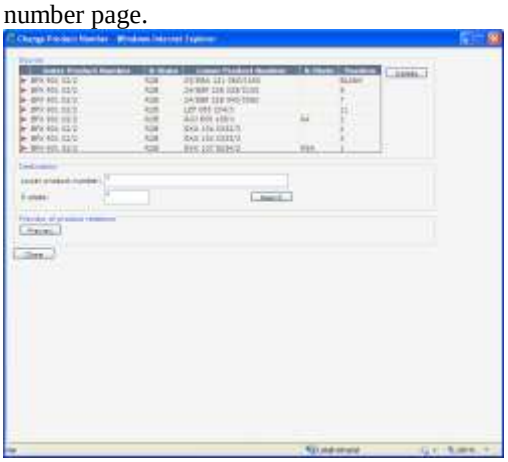
To delete a product relation:

1. Click on **[Search]** to fetch all product relations that match the search criteria defined in the fields.
2. Select the product relation you want to delete in the list.
3. Click on **[Delete]** to delete the product relation from database.

Change a Product Number

To change a product number in multiple relations:

1. Click on **[Search]** to fetch all product relations that match the search criteria defined in the fields.
2. Click on **[Change Product Number]** to open the change product number page.



3. You can delete relations you do not want to change by selecting row in list and click **[Delete]**.
4. Enter the destination **Lower product number** and **R-state**.
5. Click **[Preview]** to see a preview of the result.

6. Click **[Save]** to save changes.
7. Close window by clicking **[Close]**.

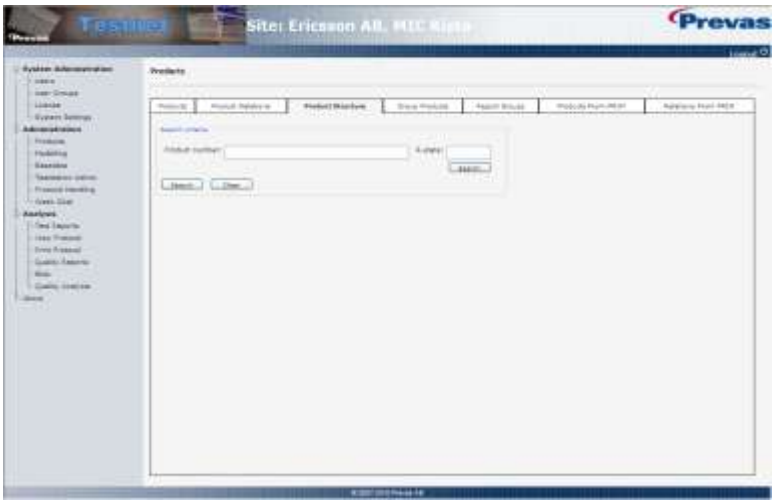
Product Structure

The **Product Structure** tab is used to display the entire product structure.

This is how to activate the **Product Structure** tab:

1. Click on **Products** in the main menu.
2. Switch to the **Product Structure** tab.

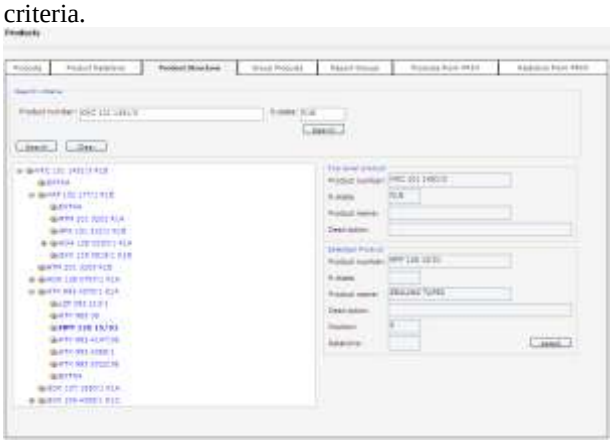
Note: It is also possible to reach the **Product Structure** tab from the **Products** tab. The selected product will be transferred to the **Product Structure** tab as a parent.



Retrieve Product Structure

To retrieve the product structure:

1. Enter the **Product number** and **R-state** as search criteria.
2. Click on **[Search]** to retrieve the product that matches the search criteria.



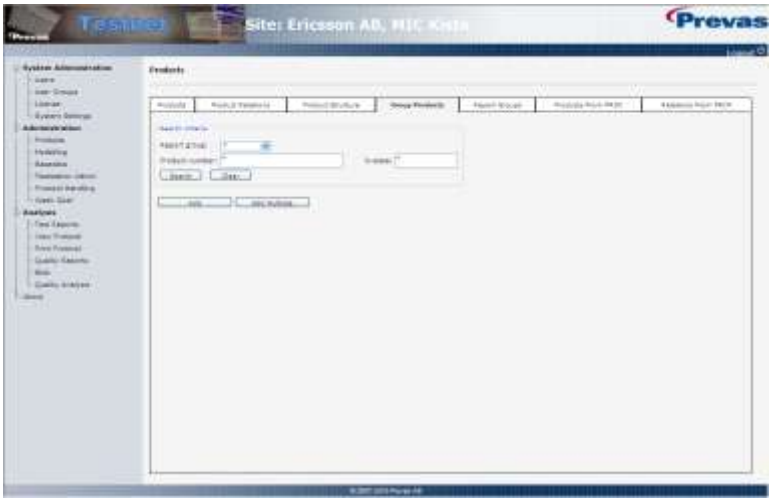
Group Products

The Group Products tab is used to group products that belong to each other in some way. For example, two products are very closely related, but have very different product numbers. Due to this, it will not be possible to select these two

products for a report. But by grouping them in a report group, it is possible to create a report based on a report group.

This is how to activate the **Group Products** tab:

1. Click on **Products** in the main menu.
2. Switch to the **Group Products** tab.



Add one Product to a Report Group

To add one product to a report group:

1. At least one report group must exist. Use the **Report Groups** tab to create a report group if there are none.
2. Click on **[Add]** to open add section.

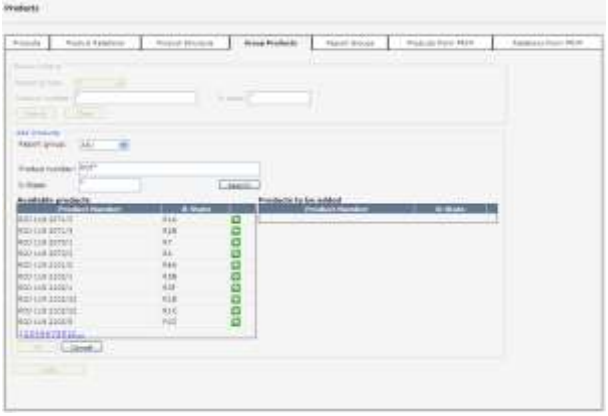
2. Select the name of an existing **Report group**.
3. Enter the **Product number** and optional **R-state.** You can use wildcard (*) to make a search by clicking on **[Search]**. Select a product in the list to the right.
4. Click on **[OK]** to add the product to the report group. Click on **[Cancel]** to close the add section without saving.

Add Multiple Products to a Report Group

To add multiple products to a report group:

1. At least one report group must exist. Use the **Report Groups** tab to create a report group if there are none.

2. Click on **[Add Multiple]** to open add multiple section.



2. Select the name of an existing **Report group**.
3. Enter the **Product number** and optional **R-state.** You can use wildcard (*) to make a search by clicking on **[Search]**. Select the wanted products by clicking ➡ in the list to the left.
4. Click on **[OK]** to add all products in the right list to the report group. Click on **[Cancel]** to close the add multiple section without saving.

Remove Products from a Report Group

To remove products from a report group:

1. Click on **[Search]** to fetch all report groups that match the search criteria defined in the fields.
2. Select the product you want to remove from a report group in the list.
3. Click on **[Delete]** to remove the selected product from the report group.

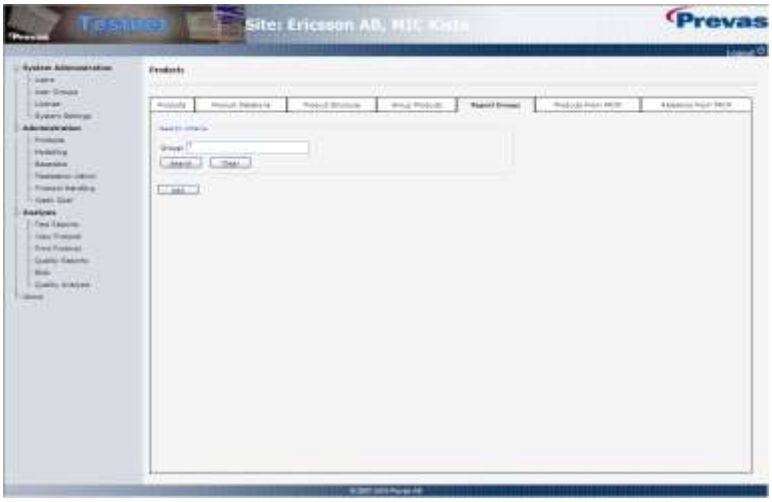
Report Groups

The term report group is used when two or more products are linked to a group. You create a report group if you often need to see statistics about some products presented in one report.

In some reports it is possible to divide the report group by product number. In other reports, the statistics always represent the entire group. The report group can be used in every report except the Yield report (report location) and the Fault Outcome report (report location).

This is how to activate the **Report Groups** tab:

1. Click on **Products** in the main menu.
2. Switch to the **Report Groups** tab.



Add a Report Group

To add a report group:

1. Click on **[Add]** to open add section.

2. Enter the name of the **Report group** and a **Description**.
3. Click on **[OK]** to add the report group. Click on **[Cancel]** to close the add section without saving.

Remove a Report Group

To remove a report group:

1. Click on **[Search]** to fetch all report groups that match the search criteria defined in the fields.
2. Select the report group you want to delete in the list.
3. Click on **[Delete]** to delete the selected report group from the database.

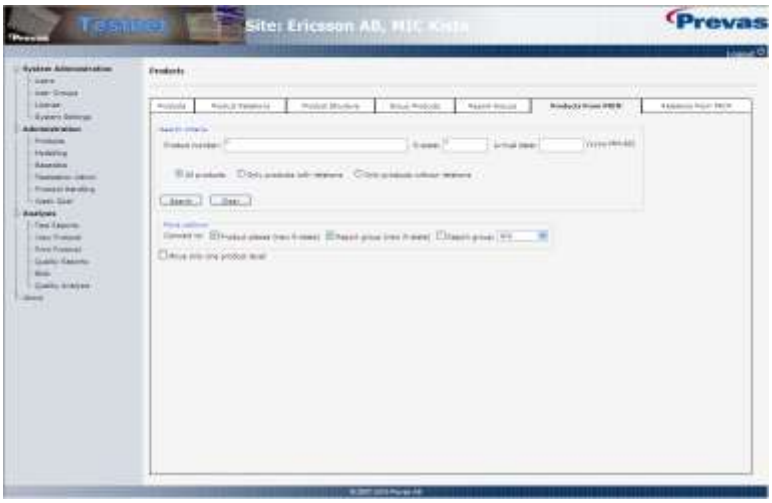
Products from PRIM

Ensure that the products you want to work with have been registered in Quality database. You do this in the **Products** and **Product Relations** tabs in the **Products** page. If the products have not been registered, you must fetch them from PRIM (provided that you have a subscription) or enter them manually. All products that the site subscribes to will first be delivered into the PRIM "mailbox". To make the products available in the application, the administrator must fetch the products from the mailbox and move them into the Quality

database. This function is called "Import product from PRIM". Read more in the "System Administrators Guide".

This is how to activate the **Products from PRIM** tab:

1. Click on **Products** in the main menu.
2. Switch to the **Products from PRIM** tab.



Import Products from PRIM

To import a product from PRIM to the Quality database:

1. Enter the **Product number**, **R-state** or **Arrival date** as a search criteria.
2. Select one of these four alternatives. The choice you make will affect the time it takes to perform the search.

All Products	This alternative will select all products, with the number of relations for the products is calculated and shown in the **# Rel** field. If no relations exist, the field is left blank..
Only products without relations	This alternative will only select products that have a zero value in the **# Rel** field.
Only products with relations	This alternative will only select products that have a value other than zero in the **# Rel** field.

3. Click on **[Search]** to retrieve the product(s) that match the search criteria and the relation information.

   Note: The maximum number of products that can be shown is 2000. If the result is more than 2000 products, an error message will be displayed asking you to refine your search.
4. Select the product you want to import.
5. Input the **Description** (this field can also be filled-in within the **Products** tab).
6. When you open the tab, the **Connect to Product Places (new R-state)** and **Connect to Report Group (new R-state)** check boxes will be selected. This means that the product you are importing will be linked to the same product place as the previous

product with the same product number. To deactivate these functions, uncheck the appropriate check box.

7. To link the product to another report group, check the **Connect to Report Group** box and select a report group from the drop-down list of report groups.
8. Move the product by clicking on **[Move]**. The selected product with all its subordinate products, that is, its entire product structure, will be added to the Quality database, and can be accessed via the **Products** tab.

   If you want to move every listed product, click **[Move all]**. Every visible product in the list with accompanying structures will be added to application.

   If you do not want to add every product, you can select which products to move in the list. Click the **[Enable Multi Select]** button and then you get checkboxes for each row in the list. Select the product or products you want to add and then click on **[Move]**. Only the products that are checked in the table will be added to Quality database.
   You can also delete products from the table by selecting them and clicking **[Delete]**. These products are deleted from the database, which means you cannot search for them again.

   To add a product with only its top level of subordinate products, check the **Move only one product level** box. The selected product and its immediate subordinate products are now added to Quality database.
   The selected products are now added to the Quality database.

Relations from PRIM

This tab is usually only used for deleting relations to products that are not to be added when a given product structure is being imported. First delete the current product in the **Products from PRIM** tab. You can then delete the associated relations in the **Relations from PRIM** tab.

This is how to activate the **Relations from PRIM** tab:

1. Click on **Products** in the main menu.
2. Switch to the **Relations from PRIM** tab.

Import Product Relations From PRIM

Sometimes it is necessary to import a single product relation from PRIM. To do that:

1. Enter the **Outer product number**, **Outer R-state, Position, Lower product number**, **Lower R-state** or **R-state Reference** as a search criteria.
2. Click on **[Search]** to retrieve the relation or relations that match the search criteria.
3. Select the relation you want to import.
4. Move the relation by clicking on **[Move]**. The selected relation will be added to the Quality database, and can be accessed through the **Product Relations** tab.

   If you want to move every listed relation, click on **<Move all>**. Every visible relation in the list will be added.

   If you do not want to add every relation, you can select which relations to move in the list. Click the **[Enable Multi Select]** button and then you get checkboxes for each row in the list. Select the relation or relations you want to add and then click on **[Move]**. Only the relations that are checked in the table will be added to Quality database.

   You can also delete relations from the table by selecting them and clicking **[Delete]**. These relations are deleted from the database, which means you cannot search for them again.
   The selected product relations are now added to the Quality database.

Modelling

Description

In order to work with Testnet Quality parts, the system must have a map (model) of the production process. This means that areas, production lines and test categories must be defined in the system and be combined to produce report locations. Information on faults is gathered from these various report locations.

The next section describes the logical terms used during modelling. Following the description is an explanation of how modelling is performed, as well as things that should be considered during each stage.

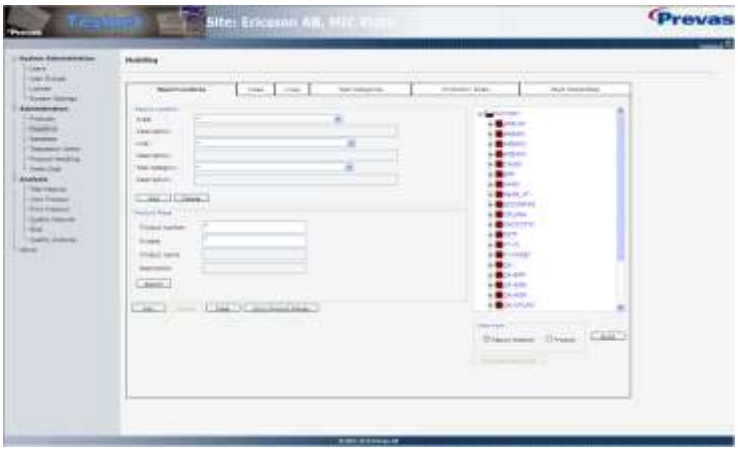
Read about modelling and look at examples: Modelling Example

How to use Modelling

This is how to activate the **Modelling** page:

2. Click on **Modelling** in the main menu

Then the Modelling page is opened:



The **Modelling** page contains six different tabs:

- Report Locations
- Areas
- Lines
- Test Categories

- Production Goals
- Fault Possibilities

Report Locations

A report location is a combination of an area, a production line and a test category. In other words, a report location is a specific place in the production facility where a certain test is conducted. The data that is collected from a test (report location), is entered into Testnet from a terminal and then used for generating quality reports.

In the tab **Report Locations**, you can create or delete report locations. You can also create product places that link products to the report locations.

To get an overview of the modelling, you can use the tree structure, which displays every report location and its associated linked products. Move up and down in the structure by double clicking on the different objects.

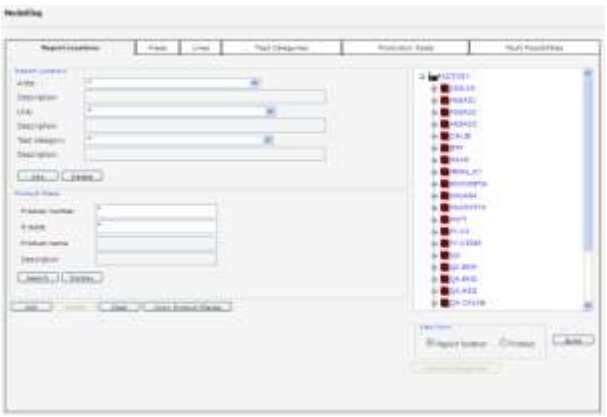
You can choose to view the structure starting from the report locations or from the products. Choose by clicking on in the respective radio button under the tree structure, and click on **[Build]**.

If you select an object in the structure the information is automatically transferred to the text fields to the left.

When you click on **[Build]**, the structure will be displayed according to the search criteria in the text fields.

You can always empty the fields by clicking on **[Clear]**.

You can also block a product place from input by clicking on the **[Activate/deactivate]** button.



Product place

A product place is a term that combines an area, a production line, a test category and a product. This is the same as combining a report location and a product. Product places are created in order to separate test information that applies to a specific product when several products have passed through the same test. The administrator determines which products can be reported on at a specific report location. This simplifies reporting for the operator, who has a limited number of products to choose from for each report location.

This is how to activate the **Report Locations** tab:

1. Click on **Modelling** in the main menu

Adding a Report Location

To define a report location:

1. Select **Area**, **Line** and **Test category** in their respective drop-down-lists. If **[Enter Value]** is selected a textbox is displayed and a new name can be entered.
2. Click on **[Add]** to add the report location to the list.

Delete a Report Location

To delete a report location:

1. Select **Area**, **Line** and **Test category** in their respective drop-down-lists or use the tree-view on the right to search for the report location.
2. Click on **[Delete]** to delete the report location.

Display Product Places

To create a list of all product places that matches search criteria:

1. Enter the **Area**, **Line**, **Test category**, **Product number** and **R-state** in their respective fields or use the tree-view on the right to search for the product places.
2. Click on **[Display]** to generate a list containing all the product places and their corresponding number of fault possibilities.

Create a Product Place

To create a product place:

1. Select **Area**, **Line** and **Test category** in their respective drop-down-lists or use the tree-view on the right to search for the report location.
2. Type search criteria in the fields for **Product number** and **R-state**, and click on **[Search]**.
3. Select a product in the list and click on **[Add]**. The product place is now created as a combination of the selected report location and the selected product.

Delete a Product Place

To delete a product place:

1. Enter the **Area**, **Line**, **Test category**, **Product number** and **R-state** in their respective fields or use the tree-view on the right to search for the product places
2. Click on **[Delete]** to delete the product place.

Activate a Product Place

If you want to open a product place for input, you can activate it.

To activate:

1. Select the product place in the tree-view or select/enter the **Area**, **Line**, **Test category**, **Product number** and **R-state** in the fields.
2. If you entered the values manually, you need to select the product place by clicking on it in the tree-view.
   Note: A red cross must be displayed on top of the product symbol you would like to activate.

3. Click on **[Activate/Deactivate]** to activate the product place.

The red cross will disappear from the selected symbol in the tree-view. This indicates that the symbol is now active.

Deactivate a Product Place

If you want to close a product place from input, you can deactivate it.

To deactivate:

1. Select the product place in the tree-view or select/enter the **Area**, **Line**, **Test category**, **Product number** and **R-state** in the fields.
2. If you entered the values manually, you need to select the product place by clicking on it in the tree-view.
   Note: If a red cross is displayed on top of the product symbol you would like to deactivate, then the symbol is already deactivated.
3. Click on **[Activate/Deactivate]** to deactivate the product place.

A red cross will appear on top of the selected symbol in the tree-view. This indicates that the symbol now is deactivated.

Copy Product Places

It is not necessary to complete each field when you specify the product places to be copied. The following combinations can be used:

Area, **Line** and **Test category**, whereby every product place that belongs to the report group is copied.

Area, **Line** and **Test category** and search criteria for products, whereby every product place linked to the stated report location and to products that begin with the search criteria are copied.

Area, **Line**, **Test category**, **Product number** and **R-state**, whereby only the specified product place is copied.

This is how to activate the **Copy Product Places** dialog box:

1. Click on **Modelling** in the main menu.
2. Switch to the **Report Locations** tab.
3. Click on **[Copy Product Places]**.

Copy One or More Product Places

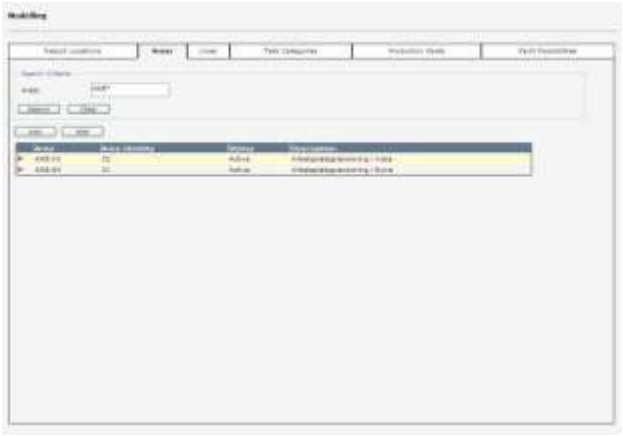
The combination of area, line and test category that was stated in the **Report Locations** tab will be automatically displayed when the **Copy Product Places** dialog box is shown.

To copy one or more product places:

1. Select the **Report location** you want to copy **From** by entering a search criterion, by using the combo-boxes or by selecting in the tree-view.
2. If you want a specific product, you can enter a **Product number** and **R-state**, and click on **[Search]**.
3. Enter the **Report location** to which you want to copy **To**.
4. To view which test locations will be created, click on **[Preview]**.
5. To copy the product places to the current report location, click on **[Copy]**.
6. Click on **[Close]** to close the dialog box.

Areas

An area is a certain clearly defined section of the production surface. For example, the area can be a section or a surface where a specific product is manufactured. One or more production lines are linked to an area.



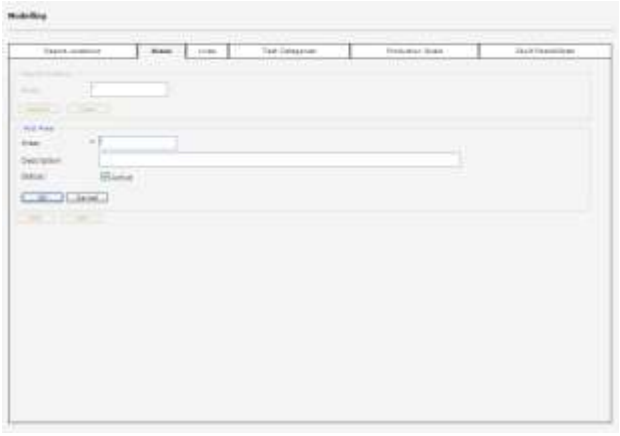
This is how to activate the **Areas** tab:

1. Click on **Modelling** in the main menu.
2. Switch to the **Areas** tab.

Add an Area

To add a new area:

1. Click on **[Add]** to open the add section.

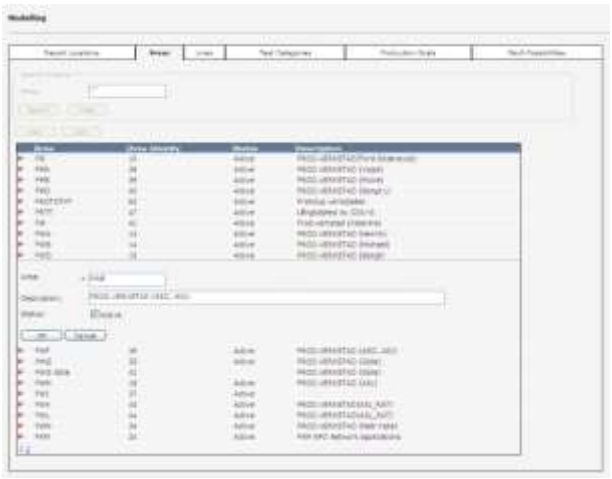


2. Type the name of the **Area** and a **Description** of the area. Set the area to **Active** by marking the checkbox.
3. Click on **[OK]** to add the area to the list. Click on **[Cancel]** to close the add section without saving.

Change an Area

To change an area:

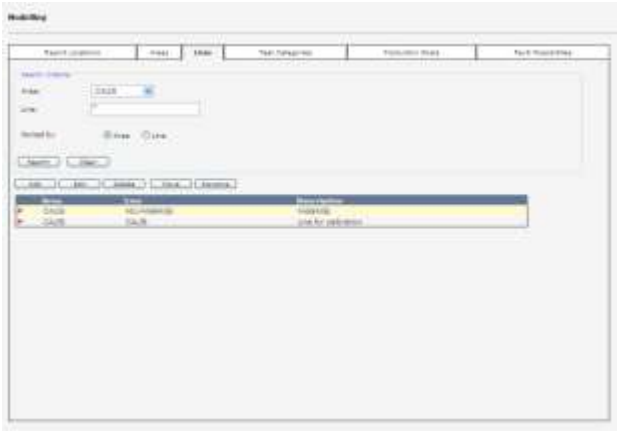
1. Click on **[Search]** to fetch all areas that match the search criteria defined in the first field.
2. Select the area to be changed in the list.
3. Click on **[Edit]** to open the edit section.



4. Make the changes.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Lines

A line is a logical term that links various production steps together. A line usually begins where production begins and ends where the product is combined with another product or is finished for delivery. A production line can correspond to a physical line, although this is not a requirement. Each line is linked to only one area.



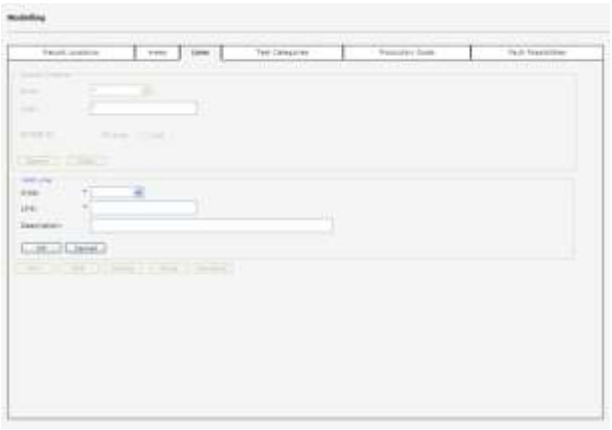
This is how to activate the **Lines** tab:

1. Click on **Modelling** in the main menu.
2. Switch to the **Lines** tab.

Add a Line

To add a new line:

1. Click on **[Add]** to open the add section.

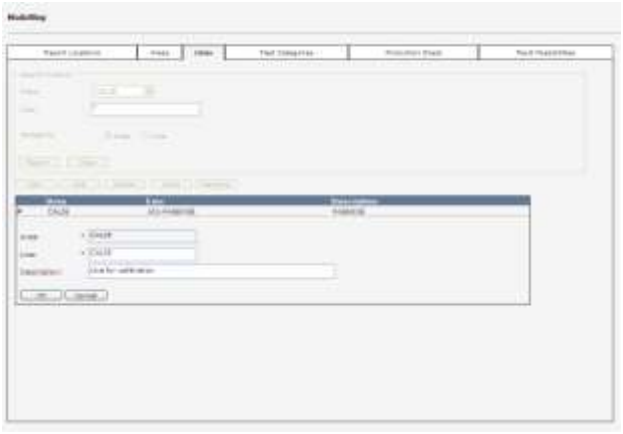


2. Select the **Area** and type the name of the **Line** and a **Description** of the line.
3. Click on **[OK]** to add the line to the area. Click on **[Cancel]** to close the add section without saving.

Change a Line

To change a line:

1. Click on **[Search]** to fetch all lines that match the search criteria defined in the fields.
2. Select the line to be changed in the list.
3. Click on **[Edit]** to open the edit section.



4. Make the changes.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Line

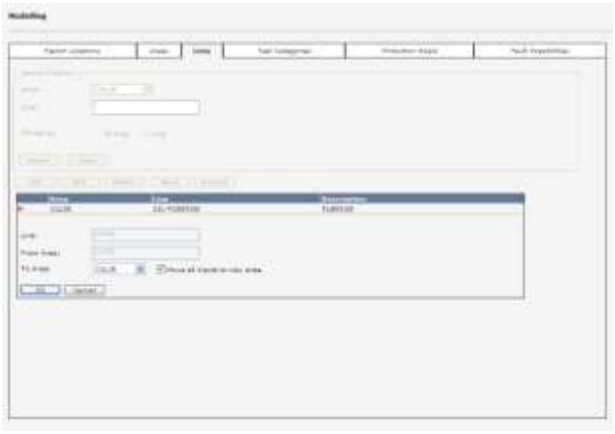
To delete a line:

1. Click on **[Search]** to fetch all lines that match the search criteria defined in the fields.
2. Select the line you want to delete in the list.
3. Click on **[Delete]** to delete the line.

Move a Line

To move a line:

1. Click on **[Search]** to fetch all lines that match the search criteria defined in the fields.
2. Select the line to be moved in the list.
3. Click on [Move] to open the move section.

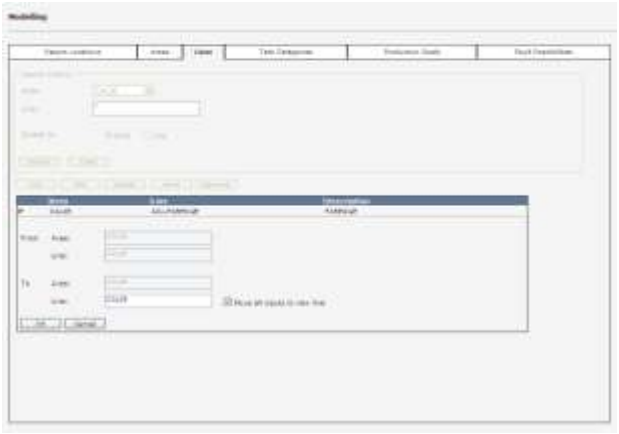


4. Select a new area and choose whether the inputs shall be moved to the new area.
5. Click on **[OK]** to move the line. Click on **[Cancel]** to close the move section without saving.

Rename a Line

To rename a line:

1. Click on **[Search]** to fetch all lines that match the search criteria defined in the fields.
2. Select the line to be renamed in the list.
3. Click on **[Rename]** to open the rename section.



4. Enter a new line and choose whether the inputs shall be moved to the new line or not.
5. Click on **[OK]** to rename the line. Click on **[Cancel]** to close the rename section without saving.

Test Categories

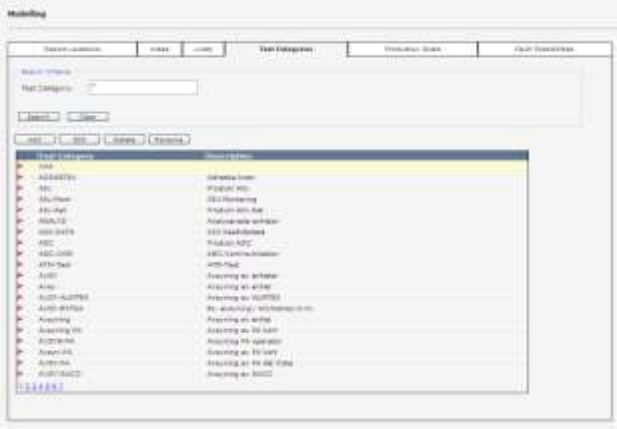
A test category indicates which type of test is run on the product. Some examples of test categories are visual inspection and function test.

When giving names to test categories, you should consider the information you want to obtain from the reports. A test category can, for example, be named to be used by different shifts such as INSPEC_DAY and INSPEC_NIGHT. This way you can easily extract information about each shift. It is important to consider which test categories can be put together in the reports. These must then be named consistently, such as INSPEC_DAY and INSPEC_NIGHT. You can use INSPEC* when you want to see both test categories in the same report.

Each test category is linked to at least one line. The combination **area-line-test category** forms a report location.

This is how to activate the Test Categories tab

1. Click on **Modelling** in the main menu.
2. Switch to the **Test Categories** tab.



Add a Test Category

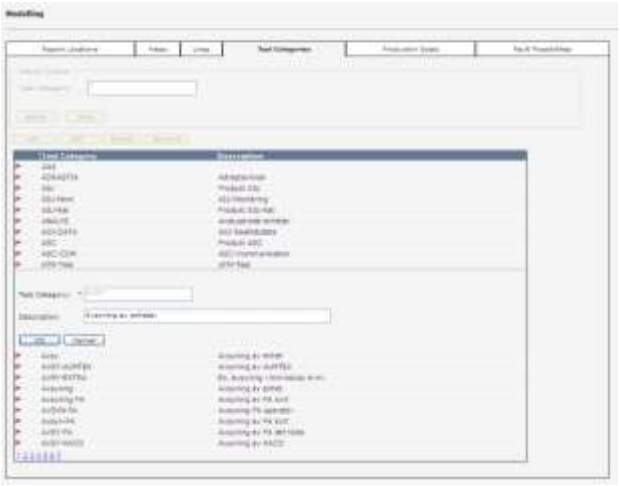
1. Click on **[Add]** to open the add section.

2. Type the name of the **Test Category** and a **Description** of the test category.
3. Click on **[OK]** to add the test category. Click on **[Cancel]** to close the add section without saving.

Change a Test Category

To change a test category:

1. Click on **[Search]** to fetch all test categories that match the search criteria defined in the fields.
2. Select the test category to be changed in the list.
3. Click on **[Edit]** to open the edit section.



4. Make the changes.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Test Category

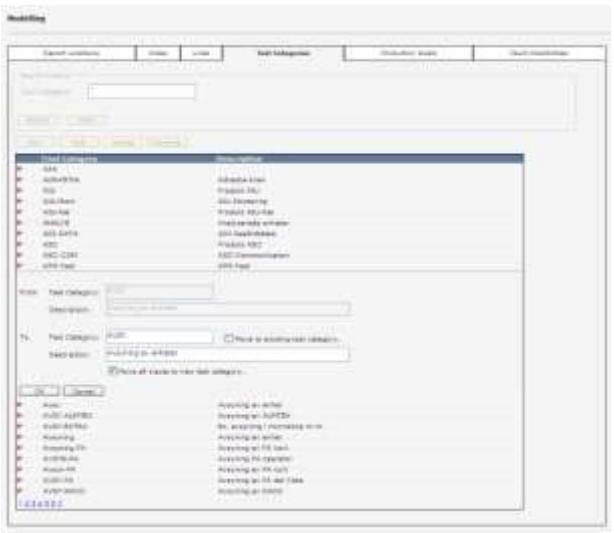
To delete a test category:

1. Click on **[Search]** to fetch all test categories that match the search criteria defined in the fields.
2. Select the test category you want to delete in the list.
3. Click on **[Delete]** to delete the test category from database.

Rename a Test Category

To rename a test category:

1. Click on **[Search]** to fetch all test categories that match the search criteria defined in the fields.
2. Select the test category to be renamed in the list.
3. Click on **[Rename]** to open the rename section.



4. Enter a new test category and choose whether the inputs shall be moved to the new test category or not. Choose if it should be renamed to an existing test category.

5. Click on **[OK]** to rename the test category. Click on **[Cancel]** to close the rename section without saving.

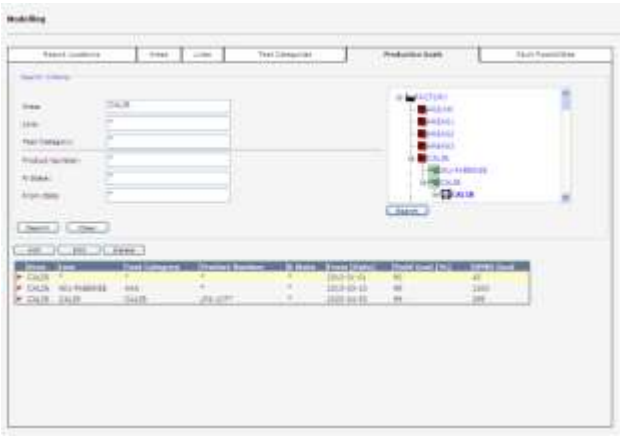
Production Goals

It is possible to link production objectives, stated in the yield and DPMO, for every possible combination of area, line, test category, and product number and R-state (that is, the product place). The objectives can be found in the different graphs (Yield graph, Fault outcome graph and Faulty graph)

Example: If, when taking out a report, you selected **Area** = "SMD", **Line** = "*", **Test category** = "Visual inspection" and **Product number** = "*", to see the target result in the graph, you must first have set targets using the same criteria.

This is how to activate the **Production Goals** tab:

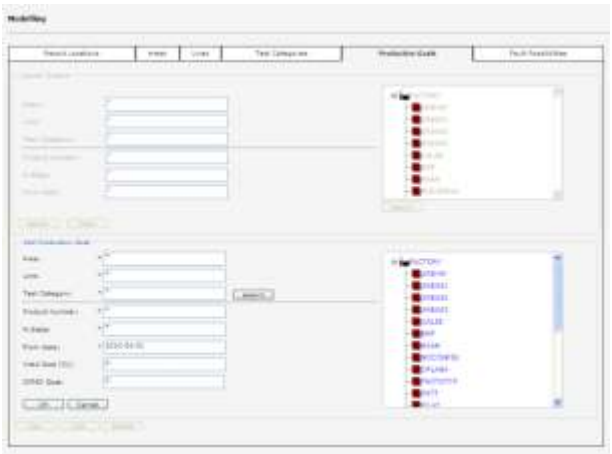
1. Click on **Modelling** in the main menu.
2. Switch to the **Production Goals** tab.



State a Production Objective

To state a production objective:

1. Click on **[Add]** to open the add section.



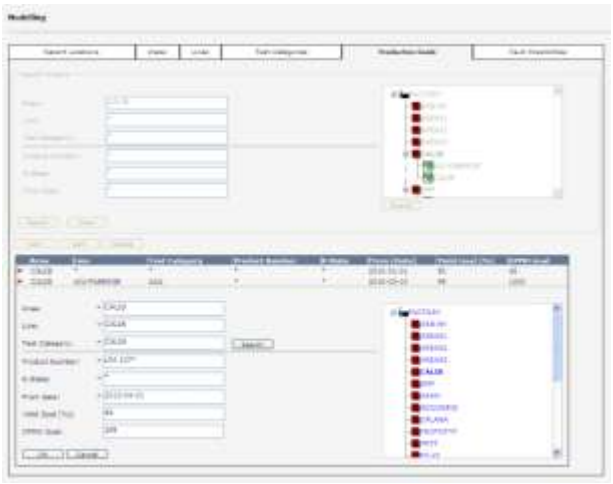
2. Enter **Area**, **Line** and **Test category**, **Product number** and **R-state** in the fields. You can also select the report location in the tree-view.
3. Enter the **Date** from which the objective is going to count. The date format is YYYY-MM-DD.

4. Enter the **Yield** and **DPMO** values in the fields. These values will be displayed in the Yield and DPMO graphs.
5. Click on **[OK]** to create the production objective. Click on **[Cancel]** to close the add section without saving.

Change a Production Objective

To change a production objective:

1. Click on **[Search]** to fetch all production objectives that match the search criteria defined in the fields.
2. Select the production objective to be changed in the list.
3. Click on **[Edit]** to open the edit section.



4. Make the changes.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Production Objective

To delete a production objective:

1. Click on **[Search]** to fetch all production objectives that match the search criteria defined in the fields.
2. Select the production objective you want to delete in the list.
3. Click on **[Delete]** to delete the production objective.

Fault Possibilities

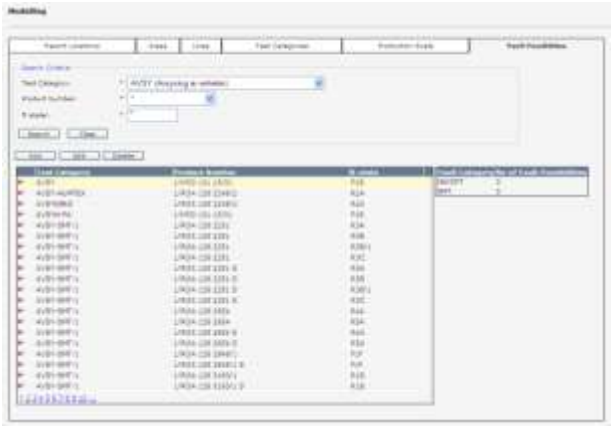
Each combination of test category, product number and R-state can have a number of fault possibilities.

This combination may exist in several areas/lines. The number of fault possibilities will be the same for all these occurrences of the combination.

All DPMO-reports (Defects Per Million Opportunities) are based on the number of fault possibilities.

This is how to activate the **Fault Possibilities** tab:

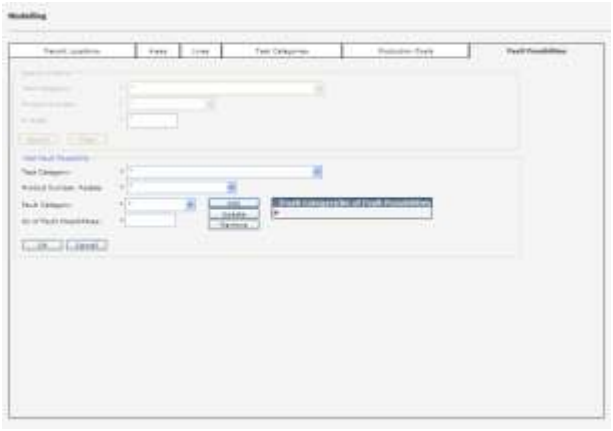
1. Click on **Modelling** in the main menu.
2. Switch to the **Fault Possibilities** tab



State Number of Fault Possibilities

To state number of fault possibilities:

1. Click on **[Add]** to open the add section.

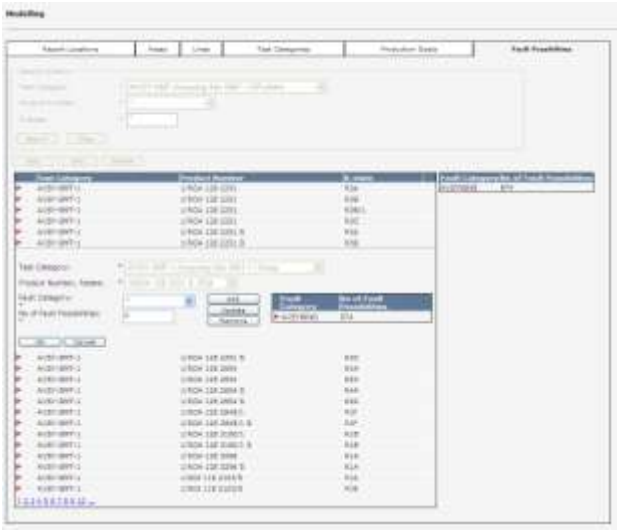


2. Select a combination of **Test category**, **Product number** and **R-state** in the fields.
3. Select a **Fault Category** and enter the **No of Fault Possibilities** for that category.
4. Click on **[OK]** to create state fault possibility. Click on **[Cancel]** to close the add section without saving.

Change Number of Fault Possibilities

To change number of fault possibilities:

1. Click on **[Search]** to fetch all fault possibilities that match the search criteria defined in the fields.
2. Select the combination you want to change in the list.
3. Click on **[Edit]** to open the edit section.



4. Click on **[Add]**, **[Update]** and **[Remove]** to make changes in the table in the edit section.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete Number of Fault Possibilities

To delete all number of fault possibilities for a combination:

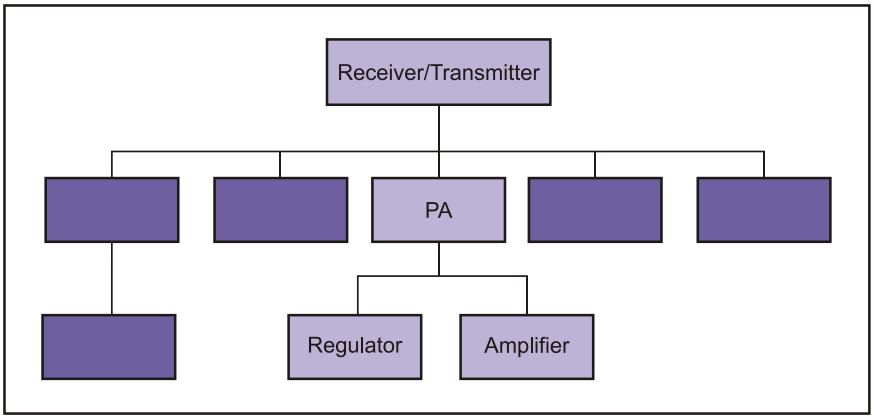
1. Click on **[Search]** to fetch all fault possibilities that match the search criteria defined in the fields.
2. Select the combination you want to delete in the list.
3. Click on **[Delete]** to delete the combination.

Modelling Example

The following example shows how a production facility can be modelled in Testnet. Each way of modelling, are defined according to the needs of the production facility. What we want to emphasise most are the working methods and planning that goes into modelling.

Product Description

The finished product in this example is a transceiver. The transceiver consists of several subordinate products, as illustrated in the figure below. We will first look at the modelling of one of the subordinate products, the PA, and its subordinate products: the controller board and the power board. The modelling example continues through the mounting of the PA together with other products at the same level, including finishing work and tests of the transceiver.



The product structure for the example
In the example, the focus is on the highlighted areas of the picture.

Production Description

Below follows a brief description of the two affected sections in the plant: the surface mounting and the radio base area. We then proceed to list the different production stages and tests through which the boards and transceiver pass.

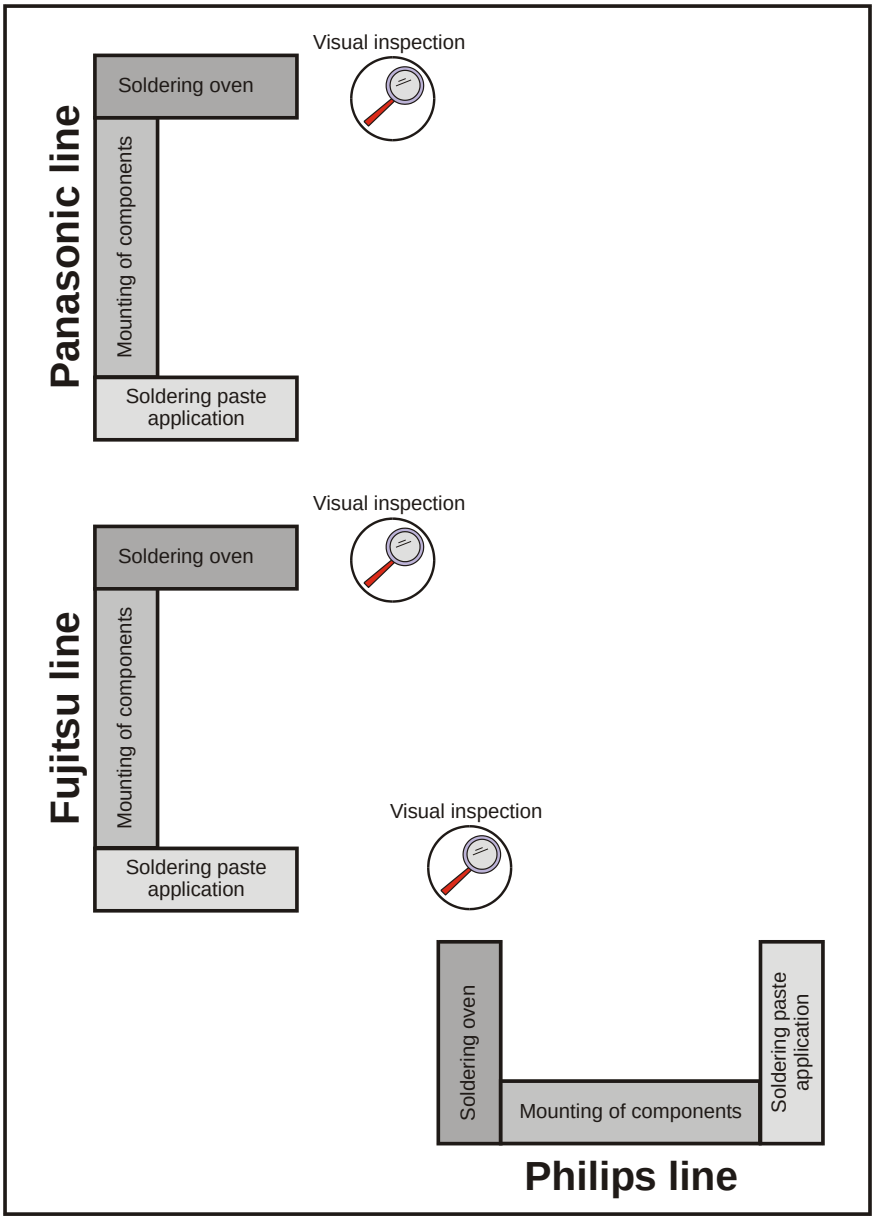
Surface Mounting

Three surface-mounting machines exist at the surface-mounting department. The machines are from Panasonic, Fujitsu and Philips (note that in this case, the line, which is the physical production line, has no connection with the term production line in Testnet). From time to time, the controller and power boards are produced on all three lines.

The mounting equipment performs the work in three stages:

1. Soldering paste is applied to the boards.
2. Components are mounted on the boards.
3. The boards pass through an oven where the components are soldered.

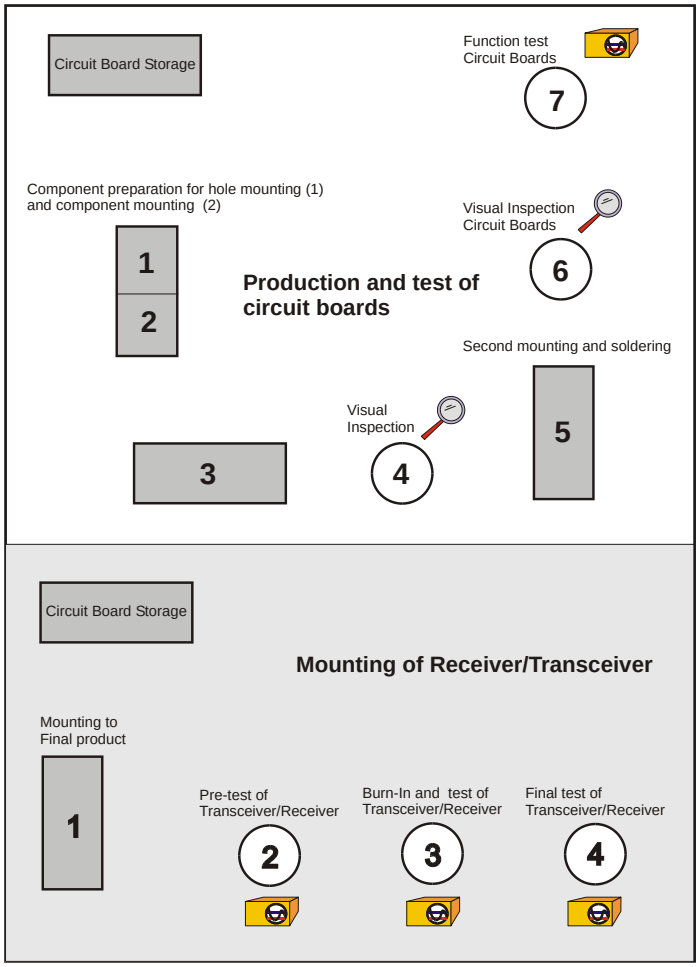
Finally, the boards are inspected (by means of a visual inspection). Each line has its own visual inspection location.



The modelling example, surface mounting area

Radio-Base Area

At the radio-base area, the boards are mounted, soldered and tested. The transceiver is also mounted and tested.



The modelling example, radio-base area

Production of Regulator and Amplifier Boards

Each printed board assembly is produced in the same manner. The production stages are as follows:

Surface-mounting area:

1. Application of soldering paste
2. Application of components
3. Soldering in oven
4. Visual inspection

Radio base area:

1. Components prepared for hole mounting
2. Mounting of components
3. Wave soldering
4. Solder inspection
5. Second mounting and soldering
6. Inspection of printed board assemblies
7. Function test (mechanical)
8. Final inspection

Production of Transceiver

The transceiver is produced as follows:

Radio base area:

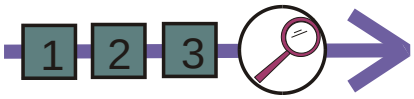
1. Joining of the PA and other components at the same structural level
2. Preliminary test
3. Burn-in and test
4. Final test

Modelling

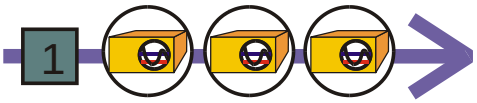
Describe which areas need to be defined. In our example, we chose to create an area for surface mounting, an area for the production and testing of printed board assemblies, and an area for mounting and testing the transceivers. This gives us the greatest possible flexibility in extracting reports, which also gives the supervisors of each section (area) the ability to extract their own reports. If we can extract reports corresponding to each radio base area, then we can make use of report groups. We name the areas Surface Mounting, PBA (printed board assembly), and Final Mounting.

List the production stages and tests that apply to the transceiver, including all subordinate products. Imagine a line between them.

Circuit boards



Surface mounting



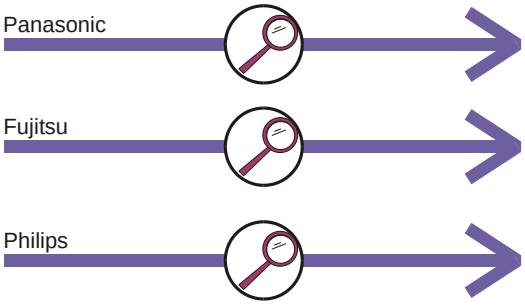
Final mounting

Design the logical view of production according to what you want to see in your reports.

In our example, we wanted to be able to differentiate between the three sets of surface-mounting equipment in the Panasonic, Fujitsu and Philips lines. This is because we want to compare the capacity and quality of each machine.

For this reason, we created three different lines for the production phases, one line for each set of equipment. Afterward, we gave appropriate names to the three lines and to the two lines that we created for the radio base area.

A schematic drawing of the lines appears below:



Surface mounting area

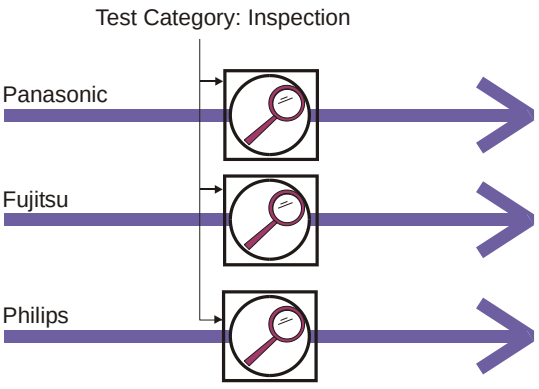
Circuit board area

Final mounting area

Make a list of the test categories you will use, and distribute them across the lines. Give each test category a unique name. To make the division even more distinct, the test categories for the boards and transceivers have been distributed between two separate figures.

Surface-mounting Area

Earlier, we chose to create three parallel lines, one for each set of surface-mounting equipment. Inspection is the same for all boards, regardless of which line they were produced on. This means that we can create a test category that can be linked to each of the three lines. Each link is unique. We have also created three different report locations, which allow us to differentiate between the lines when we enter inspection input. When entering the input, each operator specifies which report location it applies to. Thus, it is possible to determine which machine produced the board being inspected.

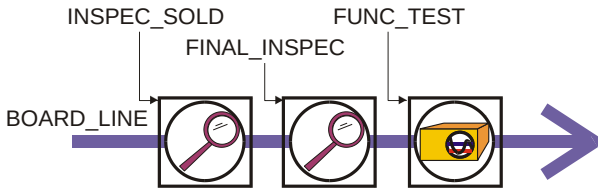


Surface mounting area with test categories

Printed Board Assembly Area

After the soldering is complete, the soldering is visually inspected. Since there is only one soldering machine, the purpose of this test is to follow up the production quality produced by the machine. We create the test category **INSP_SOLD**.

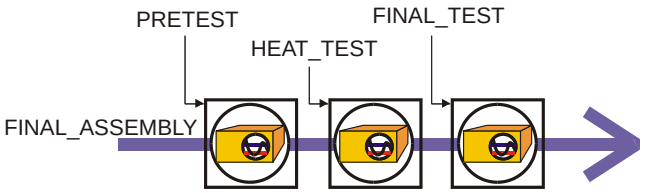
A second inspection follows the second mounting and soldering. We call this inspection **FINAL_INSP**. Finally, the board functions are tested. Thus, we create the test category **FUNC_TEST**.



Circuit board area with test categories

Final Mounting Area

A preliminary test, which we call **PRETEST**, is conducted after the various parts that make up the transceiver have been mounted. Burn-in follows while the transceiver is tested again. We call this test category **HEAT_TEST**. To conclude, we conduct a final test named **FINAL_TEST**.



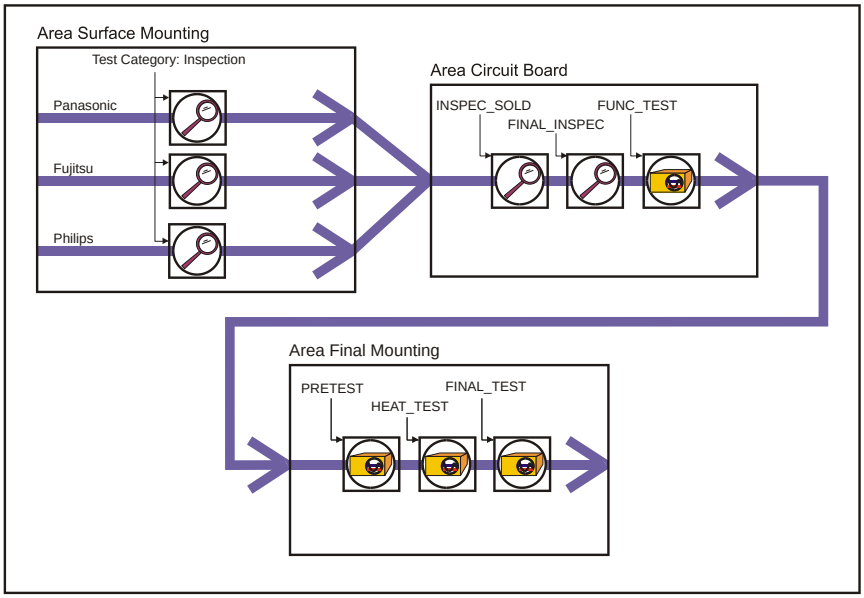
Final mounting area with test categories

After having planned the areas, line and test categories, define them in Testnet and link them to report locations.

On the following page is shown an overview of the modelling example.

Overview of the Modelling Example

This modelling example will prove itself to be very flexible for extracting various reports. By considering the search criteria to be used and how freely you can specify them in the report tab, and by comparing them with how you planned to use the model, you can determine whether the model can be used for presenting data in reports. For example, our modelling example cannot be used for providing a combined Yield report for the surface mounting and printed board assembly areas. If a report of this kind is necessary, we need to determine if it can obtain the information using report groups. If not, we might have to modify the model.



A modelling example overview

It is always a good idea to plan the model very thoroughly on paper, in order to gain a comprehensive view and to test your ideas. Ensure that everyone who has an opinion is invited to participate. This way the model can succeed from the start.

Basedata

Description

Several codes have been defined in Quality database for managing faulty data. These codes are used, for example by operators, to describe faults and associated corrective actions during repairs. The codes are also used to classify, group and categorise faults.

How to use Basedata

This is how to activate the **Basedata** page:

1. Click on **Basedata** in the main menu

Then the Basedata page is opened:

The Basedata page contains eight different tabs:

- Fault Codes
- Fault Class
- Fault Category
- Action Code
- Measurement Point
- Manufacturer

- Alarm code
- Alarm Category

The codes, classes and categories needed depends on the tests to be run on the products, which reports it is possible to generate, the way in which data in the reports is to be viewed, and on how data entered.

Before you define the basic data you intend to use, decide which types of input are to be used, such as test, fault and/or inspection input.

Test input is used when:

- ID-numbers are used in production.
- the test results faulty and approved are entered for one or more products ID-number.
- you want to generate Yield and Fault Outcome reports.

Test input is a prerequisite for entering fault input.

Fault input is used when:

- ID-numbers are used in production.
- the test results and information on faults are entered separately and for one individual at a time.

Inspection input is used when:

- input is added on a batch basis.
- the test results and information on faults are input at the same time for one or more products (without considering the ID-number). Data from inspection inputs is used in every report.

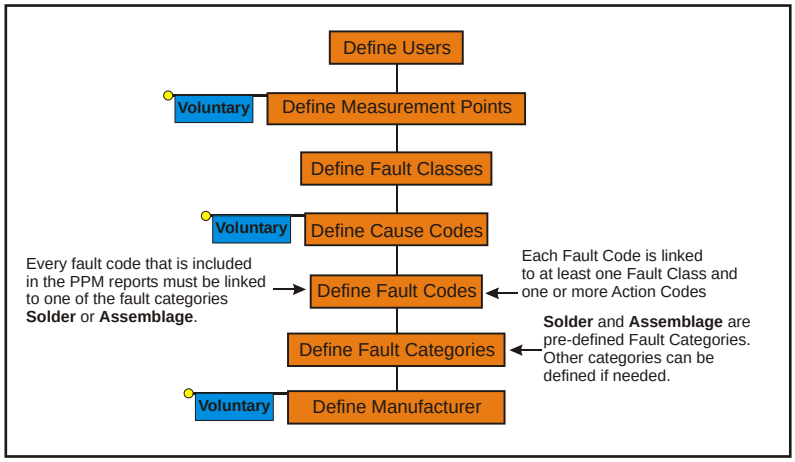
The following description applies only to the entry of data. When importing data from external systems, then you must study the description of each interface, in order to determine which codes, classes and categories are required.

To determine which codes have been defined in Quality database, you open each respective tab under the menu “Basedata”.

Note: When choosing the codes that will be used in production, you must also consider the codes that are required in accordance with the company standard and which information you are accustomed to using during analysis.

Work Flow to Add Base Data

When the base data is defined, you can follow these steps:


Define Users
Voluntary
Define Measurement Points
Define Fault Classes
Voluntary
Define Cause Codes
Every fault code that is included in the PPM reports must be linked to one of the fault categories **Solder** or **Assemblage**.
Define Fault Codes
Each Fault Code is linked to at least one Fault Class and one or more Action Codes
Solder and **Assemblage** are pre-defined Fault Categories. Other categories can be defined if needed.
Define Fault Categories
Voluntary
Define Manufacturer

Description of the workflow

Define Users

The users that will use Quality functions must be defined.

Read more about users in "Users" on page 257.

Define Measurement Points

This is an optional step.

A measurement Point is a code that is used during input to simplify the QAnalysts task.

Read more about measurement points in "Measurement Points" on page 230.

Define Fault Classes

Fault codes are connected to fault classes. The fault class defines the severity of the fault.

Read more about fault classes in "Fault Classes" on page 224.

Define Action Codes

This is an optional step.

An action code can be selected at input to declare what has been done to rectify the fault.

Read more about action codes in "Action Codes" on page 228.

Define Fault Codes

The description of the fault code describes the fault in plain text.

Read more about fault codes in "Fault Codes" on page 222.

Define Fault Categories

The fault codes can be grouped into different fault categories. This may help in the process of analysing the faults.

Read more about fault categories in "Fault Categories" on page 226.

Define Manufacturer

This is an optional step.

A manufacturer can be selected at entry of a particular fault. This may help in the process of analysing the faults that are caused by a component from a certain manufacturer.

Read more about manufacturers in "Manufacturers" on page 232.

Define Alarm Code

This is an optional step.

An alarm code can be selected at entry of a particular fault ”Exchange of ID-marked unit” in Reptile.

Read more about alarm codes in "Alarm Codes" on page 234.

Define Alarm Categories

This is an optional step.

The alarm codes can be grouped into different alarm categories.

An alarm category can be selected at entry of a particular fault ”Exchange of ID-marked unit” in Reptile.

Read more about alarm categories in "Alarm Categories" on page 235.

Fault Codes

A fault code represents a special type of fault. Linked to each fault code is a text that clearly describes the fault. Examples of fault codes are:

- C107 = Too much soldering paste
- A411 = Missing component

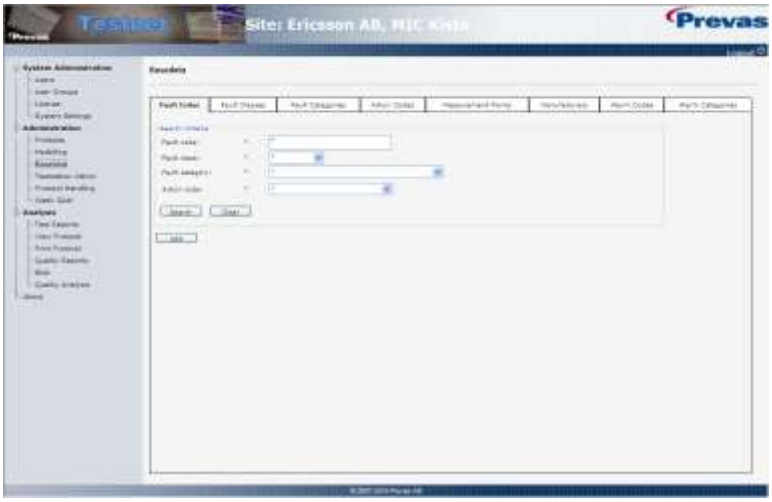
Fault codes are given during fault and inspection inputs. In order to use a fault code, it must be linked to a fault class and a fault category. Each fault code can also be linked to a correction code. The links between codes are established in the Fault Codes tab.

In the **Fault Codes** tab you can:

- Create fault codes
- Change fault codes
- Delete fault codes
- Connect a fault code to a fault class
- Connect a fault code to a fault category

This is how to activate the **Fault Codes** tab:

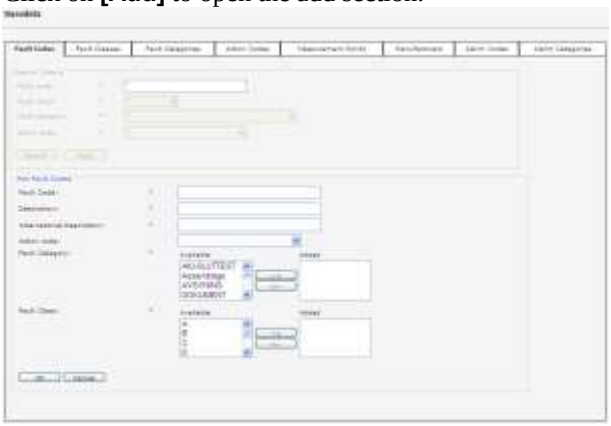
1. Click on **Basedata** in the main menu.



Add a Fault Code

To add a new fault code:

1. Click on **[Add]** to open the add section.



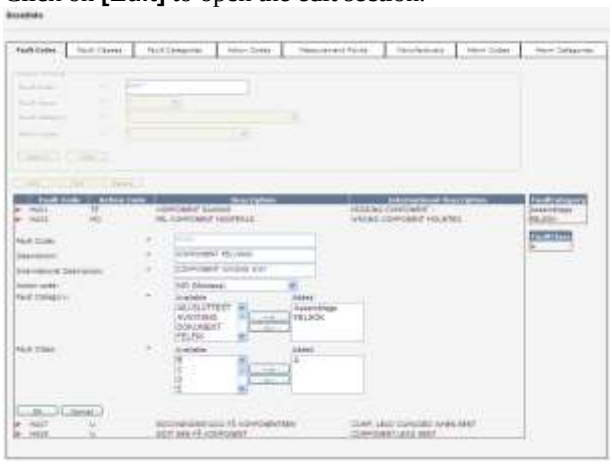
2. Type the name of the **Fault Code** and a **Description** of the fault code. You can also type an **International Description** written in English, to facilitate the exchange of information between factories and across borders. When printing reports, the international description can be selected and fault codes are printed according to the international description.
3. Select **Action Code** in the combo-box.
4. Select **Fault Category** and **Fault Class** in each respective list to the left and move them to the right list by clicking **[-->]**.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Fault Code

To change a fault code:

1. Click on **[Search]** to fetch all fault codes that match the search criteria.
2. Select the fault code you want to change in the list.

3. Click on **[Edit]** to open the edit section.



4. Change the fields, combo-boxes or lists you want to change.
4. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Fault Code

To delete a fault code:

1. Click on **[Search]** to fetch all fault codes that match the search criteria.
2. Select the fault code you want to delete in the list.
3. Click on **[Delete]** to delete the fault code.

Fault Classes

A fault code does not indicate the seriousness of a fault. Therefore, fault classes are used with every fault code.

In turn, each fault class is linked to a given value of fault points. These describe the severity of the fault represented by the fault class.

Example:

Class A =	100 fault points =>	fault value 1,0
Class B =	50 fault points =>	fault value 0,5
Class C =	10 fault points =>	fault value 0,1

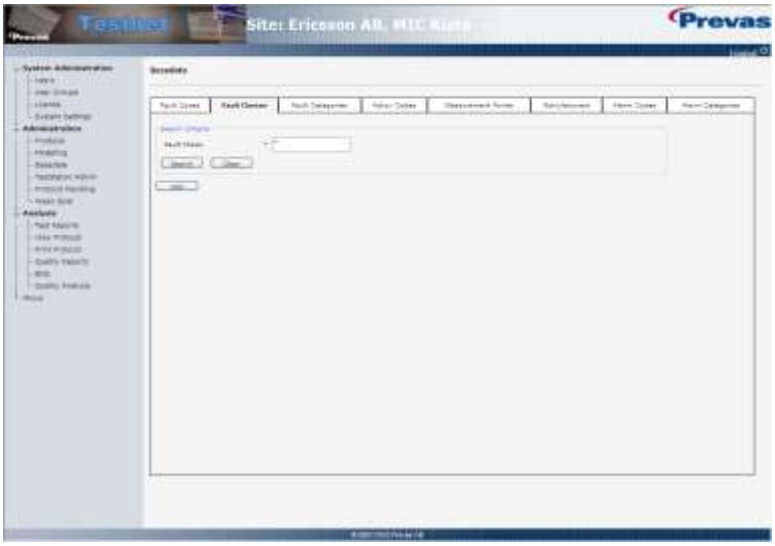
The fault classes can have any 1-character identification, and any number of points between 0 and 100.

In order to enter fault and inspection inputs, each fault code must be linked to at least one fault class. This link is established by the administrator. The operator chooses from the fault codes linked to the fault classes when entering fault or inspection inputs. Fault classes are used for generating the DPMO reports.

Note: Even when a fault class with fault value 1 (class A in the above example) is to be used, the administrator must still link each fault code to the fault class. The general rule is to use fault classes A and C only.

This is how to activate the **Fault Classes** tab:

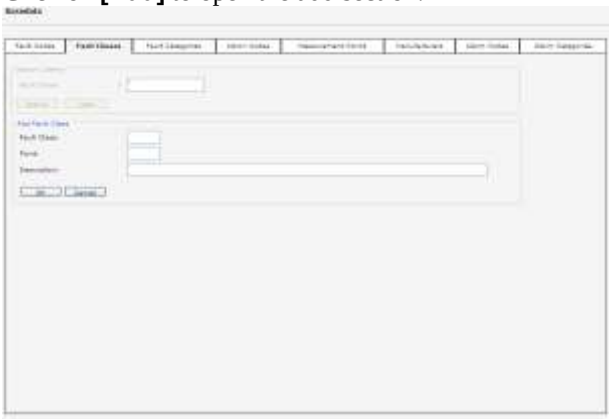
1. Click on **Basedata** in the main menu.
2. Switch to the **Fault Classes** tab.



Add a Fault Class

To add a new fault code:

1. Click on **[Add]** to open the add section.



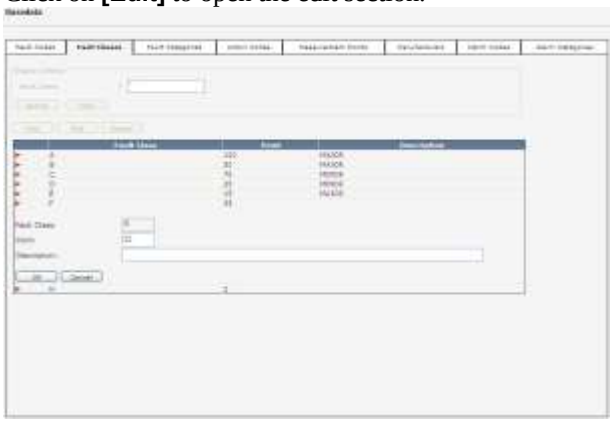
2. Type the name of the **Fault Class**, the **Points** and a **Description** of the fault class.
3. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Fault Class

To change a fault class:

1. Click on **[Search]** to fetch all fault classes that match the search criteria.
2. Select the fault class you want to change in the list.

3. Click on **[Edit]** to open the edit section.



4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Fault Class

To delete a fault class:

1. Click on **[Search]** to fetch all fault classes that match the search criteria.
2. Select the fault class you want to delete in the list.
3. Click on **[Delete]** to delete the fault class.

Fault Categories

In order to provide statistics, it may be advantageous to group fault codes into fault categories. These categories are necessary for generating DPMO reports.

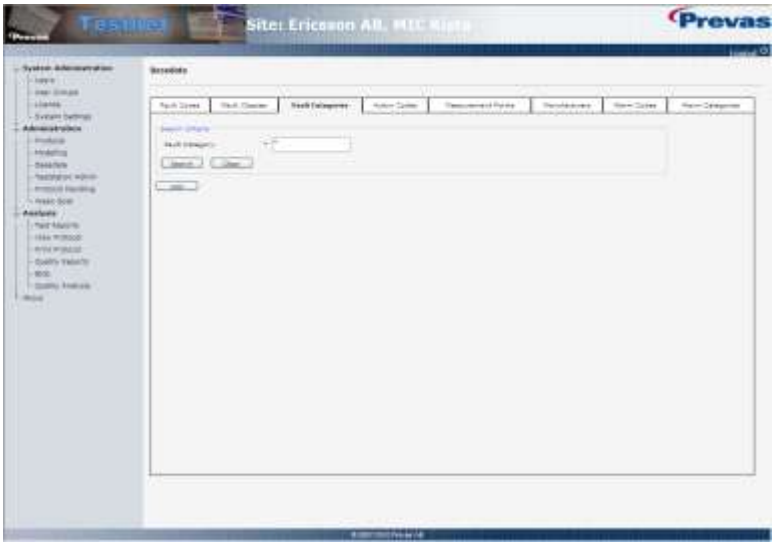
A fault category can for example include every fault that can be connected with a component.

Every fault code that is included in the DPMO reports must be linked to a fault category.

You can define additional categories for generating custom reports. In order to use the fault categories, the fault codes must be linked to them. One fault code can be linked to several fault categories.

This is how to activate the **Fault Categories** tab:

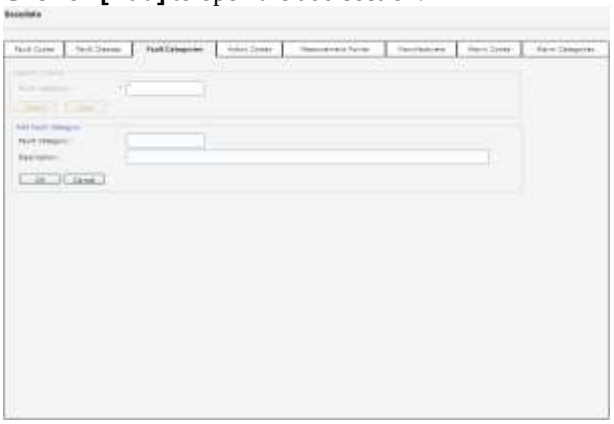
1. Click on **Basedata** in the main menu.
2. Switch to the **Fault Categories** tab.



Add a Fault Category

To add a new fault category:

1. Click on **[Add]** to open the add section.



2. Type the name of the **Fault Category** and a **Description** of the fault category.
3. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Fault Category

To change a fault category:

1. Click on **[Search]** to fetch all fault categories that match the search criteria.
2. Select the fault category you want to change in the list.

3. Click on **[Edit]** to open the edit section.

4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Fault Category

To delete a fault category:

1. Click on **[Search]** to fetch all fault categories that match the search criteria.
2. Select the fault category you want to delete in the list.
3. Click on **[Delete]** to delete the fault category.

Action Codes

The **Action Codes** tab is used to enter the type of action that has been used correct a specific fault. Examples of codes are:

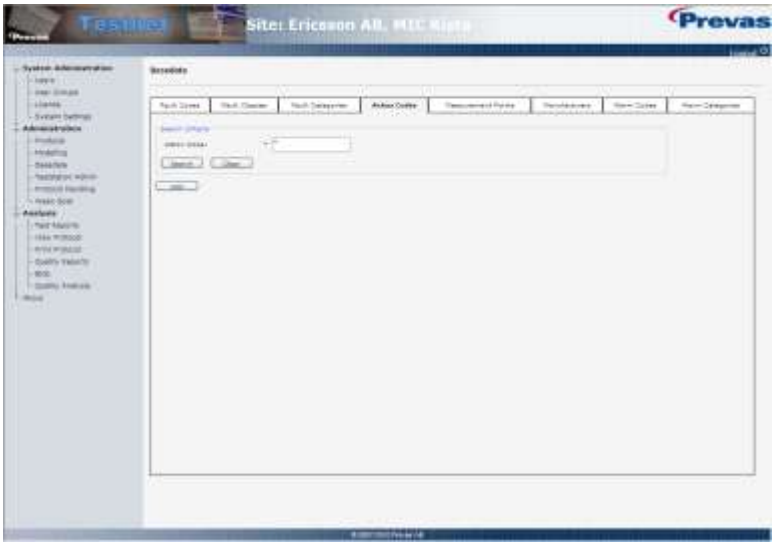
- 01 - Resolder
- 02 - Change component
- 03 - Scrap component

Action codes are used during fault and inspection input. The predefined action code, **Undefined**, can be used when no other action code has been defined.

Action codes are not used in reports, but they can be used in the **Analysis** tab.

This is how to activate the **Action Codes** tab:

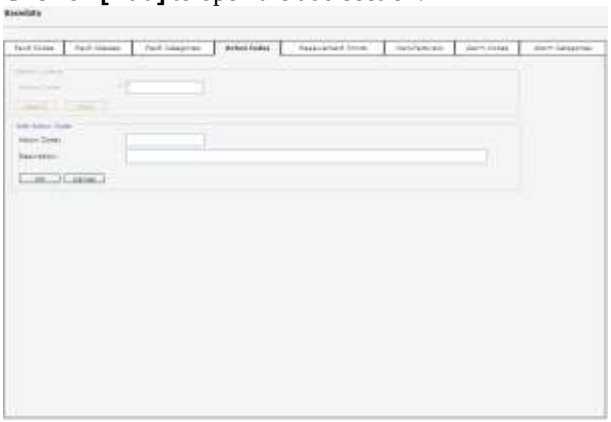
1. Click on **Basedata** in the main menu.
2. Switch to the **Action Codes** tab.



Add an Action Code

To add a new action code:

1. Click on **[Add]** to open the add section.



2. Type the name of the **Action Code** and a **Description** of the action code.
3. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change an Action Code

To change an action code:

1. Click on **[Search]** to fetch all action codes that match the search criteria.
2. Select the action code you want to change in the list.

3. Click on **[Edit]** to open the edit section.

4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete an Action Code

To delete an action code:

1. Click on **[Search]** to fetch all action codes that match the search criteria defined in the first field.
2. Select the action code you want to delete in the list.
3. Click on **[Delete]** to delete the action code.

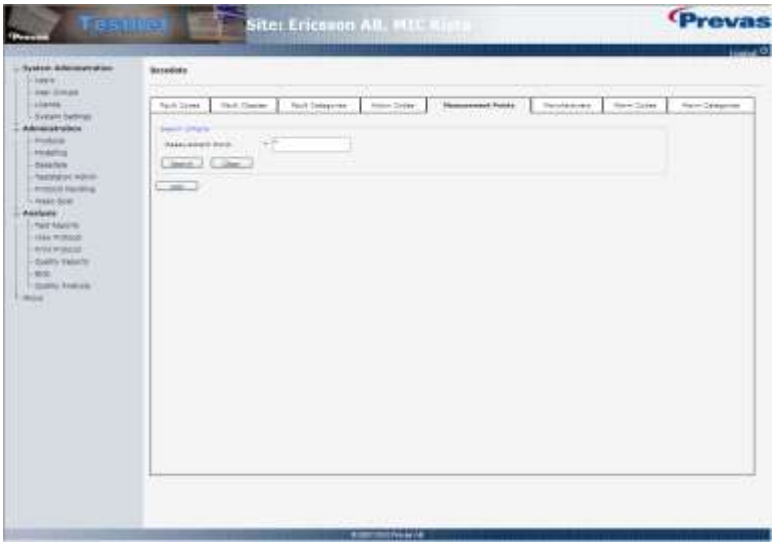
Measurement Points

The measurement point code can be used during test input. The measurement is given as a code, and the method for using this code is voluntary. You can for example use the code to let the measurement points correspond to the different test points that are used during electrical tests. Another use could be to input in which way a fault has been discovered in order to provide guidance for the repairmen, such as low voltage or the absence of current.

Measurement points are only used in the Pareto - Measurement Points report. But the information is also accessible in the **Analysis** tab.

This is how to activate the **Measurement Points** tab:

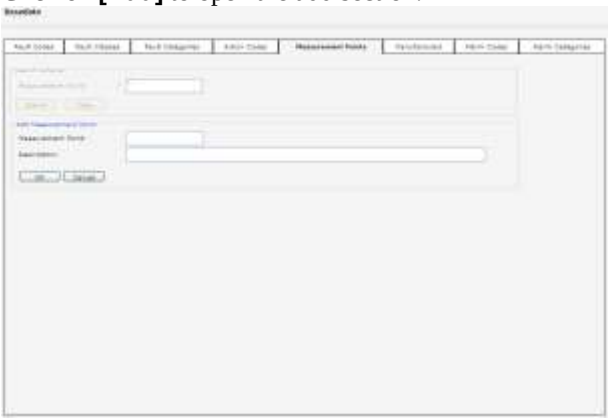
1. Click on **Basedata** in the main menu.
2. Switch to the **Measurement Points** tab.



Add a Measurement Point

To add a new measurement point:

1. Click on **[Add]** to open the add section.



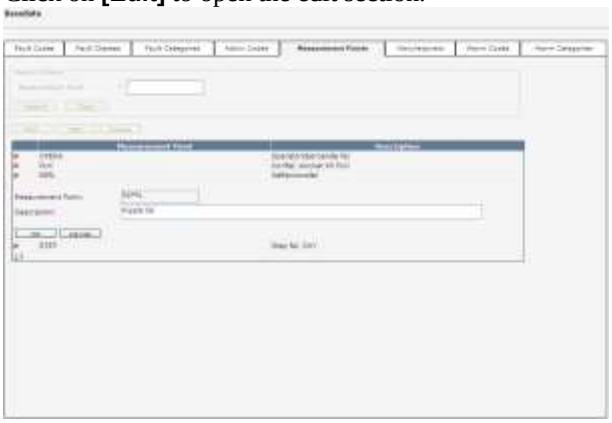
2. Type the name of the **Measurement Point** and a **Description** of the measurement point.
3. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Measurement Point

To change a measurement point:

1. Click on **[Search]** to fetch all measurement points that match the search criteria.
2. Select the measurement point you want to change in the list.

3. Click on **[Edit]** to open the edit section.



4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Measurement Point

To delete a measurement point:

1. Click on **[Search]** to fetch all measurement points that match the search criteria.
2. Select the measurement point you want to delete in the list.
3. Click on **[Delete]** to delete the measurement point from database.

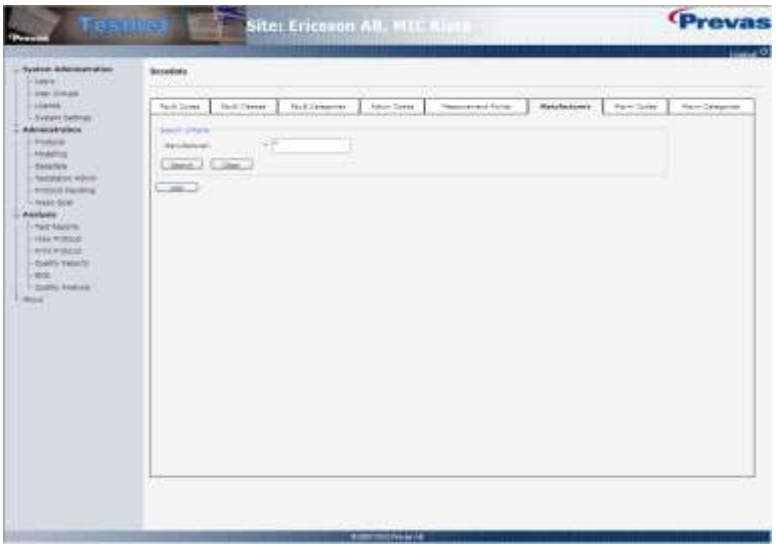
Manufacturers

The manufacturer ID is used during fault input for identifying who manufactured the various products.

Manufacturers are not used in any of the reports.

This is how to activate the **Manufacturers** tab:

1. Click on **Basedata** in the main menu.
2. Switch to the **Manufacturers** tab.



Add a Manufacturer

To add a new manufacturer:

1. Click on **[Add]** to open the add section.

2. Type the name of the **Manufacturer** and a **Description** of the manufacturer.
3. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Manufacturer

To change a manufacturer:

1. Click on **[Search]** to fetch all manufacturers that match the search criteria.
2. Select the manufacturer you want to change in the list.
3. Click on **[Edit]** to open the edit section.

4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Manufacturer

To delete a manufacturer:

1. Click on **[Search]** to fetch all manufacturers that match the search criteria.
2. Select the manufacturer you want to delete in the list.
3. Click on **[Delete]** to delete the manufacturer.

Alarm Codes

The alarm code is used during fault/repair input for Reptile.

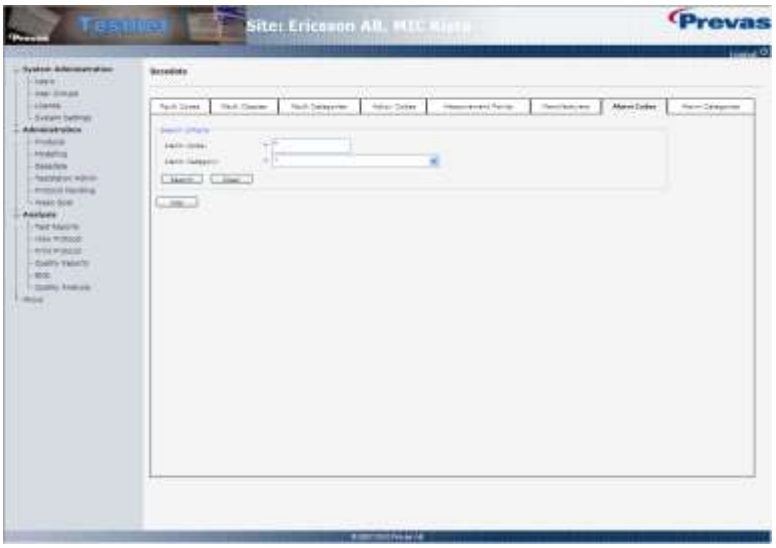
Alarm Codes are not used in any of the reports.

In the **Alarm Codes** tab you can:

- Create alarm codes
- Change alarm codes
- Delete alarm codes
- Connect an alarm code to an alarm category

This is how to activate the **Alarm Codes** tab:

1. Click on **Basedata** in the main menu.
2. Switch to the **Alarm Codes** tab.



Add an Alarm Code

To add a new alarm code:

1. Click on **[Add]** to open the add section.

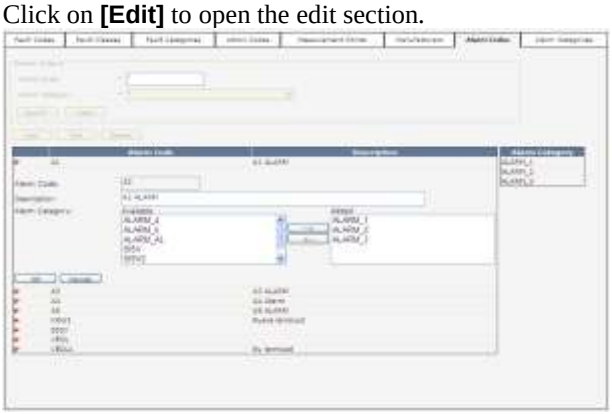
2. Type the name of the **Alarm Code** and a **Description** of the alarm code.
3. Select **Alarm Category** in the list to the left and move them to the right list by clicking **[-->]**.

4. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change an Alarm Code

To change an alarm code:

1. Click on **[Search]** to fetch all alarm codes that match the search criteria.
2. Select the alarm code you want to change in the list.
3. Click on **[Edit]** to open the edit section.



4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete an Alarm Code

To delete an alarm code:

1. Click on **[Search]** to fetch all alarm codes that match the search criteria.
2. Select the alarm code you want to delete in the list.
3. Click on **[Delete]** to delete the alarm code.

Alarm Categories

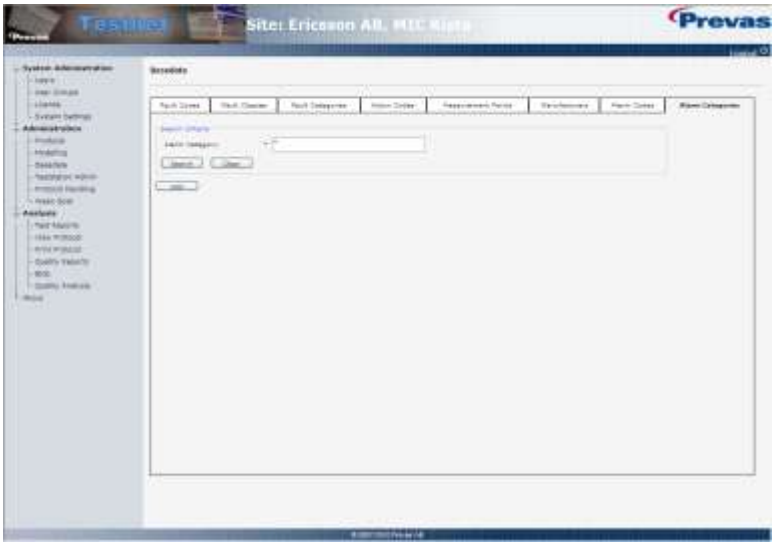
The alarm category is used during fault/repair input for Reptile.

Alarm Categories are not used in any of the reports.

In order to use the alarm categories, the alarm codes must be linked to them. One alarm code can be linked to several alarm categories.

This is how to activate the **Alarm Categories** tab:

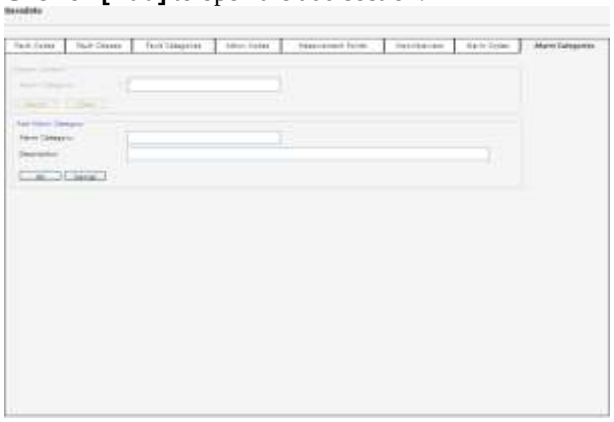
1. Click on **Basedata** in the main menu.
2. Switch to the **Alarm Categories** tab.



Add an Alarm Category

To add a new alarm category:

1. Click on **[Add]** to open the add section.



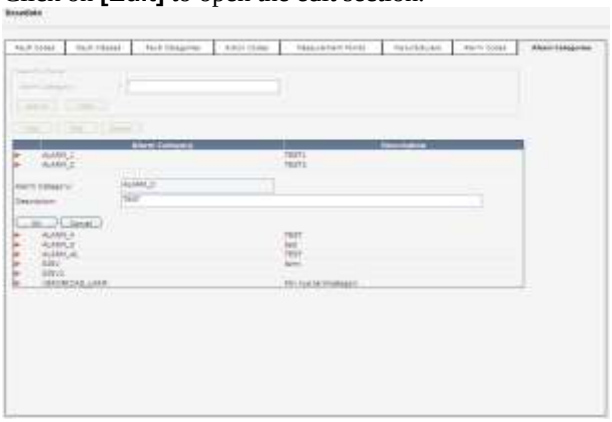
2. Type the name of the **Alarm Category** and a **Description** of the alarm category.
3. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change an Alarm Category

To change an alarm category:

1. Click on **[Search]** to fetch all alarm categories that match the search criteria.
2. Select the alarm category you want to change in the list.

3. Click on **[Edit]** to open the edit section.



4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete an Alarm Category

To delete an alarm category:

1. Click on **[Search]** to fetch all alarm categories that match the search criteria.
2. Select the alarm category you want to delete in the list.
3. Click on **[Delete]** to delete the alarm category from database.

Test Station Admin

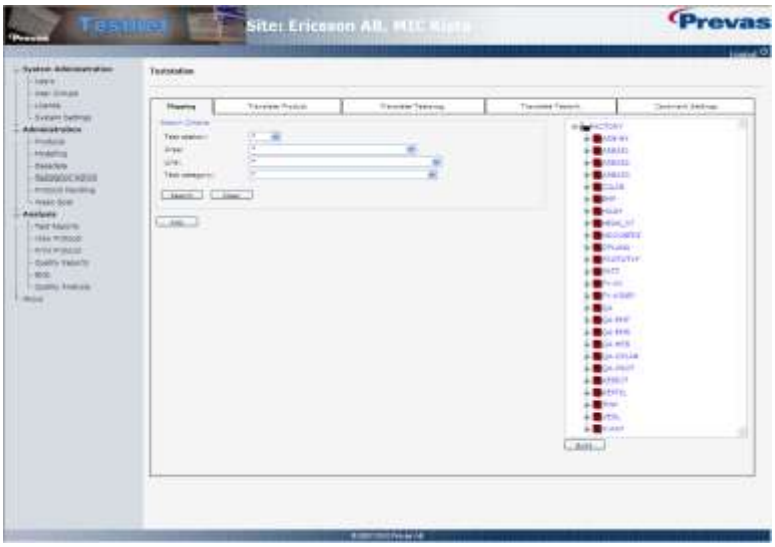
Description

Test Station Admin is an administration tool used for administrating the test stations (nodes) when automatically sending test data to quality database through the QSPInsert windows service. The tool administrates Quality modelling information that is used when mapping the stations to enable transfer of quality data.

How to Start Test Station Admin Tool

The Test Station Admin tool is started by clicking this menu option:

Then the Test Station Admin page is opened.



There are five different tabs in the test station page:

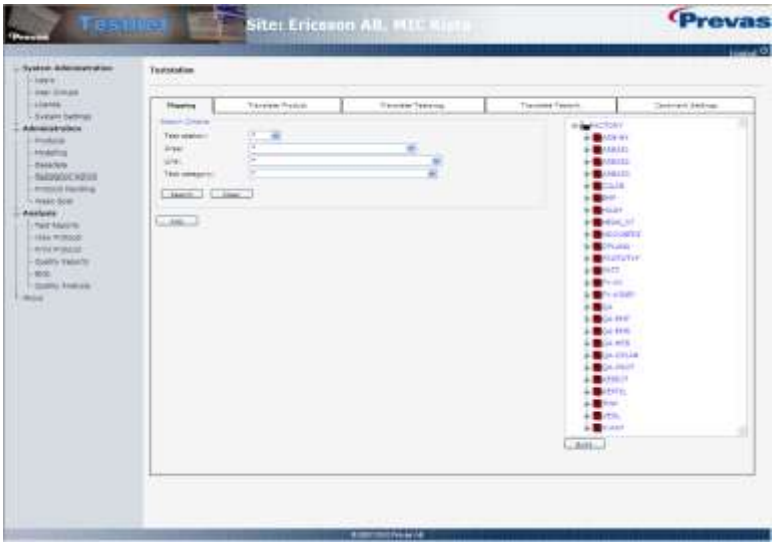
- Mapping
- Translate Product
- Translate Test Program
- Translate Test Criteria
- Cardmark Settings

Mapping

The main configuration of a test station is performed in the Mapping tab.

This is how to activate the **Mapping** tab:

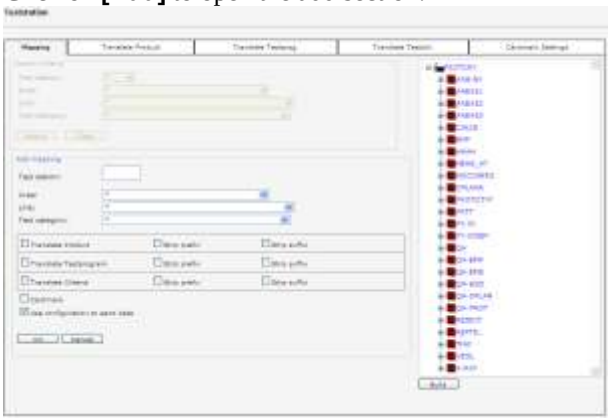
1. Click on **Test Station Admin** in the main menu.



Add a Test Station Mapping

To add a new test station mapping:

1. Click on **[Add]** to open the add section.

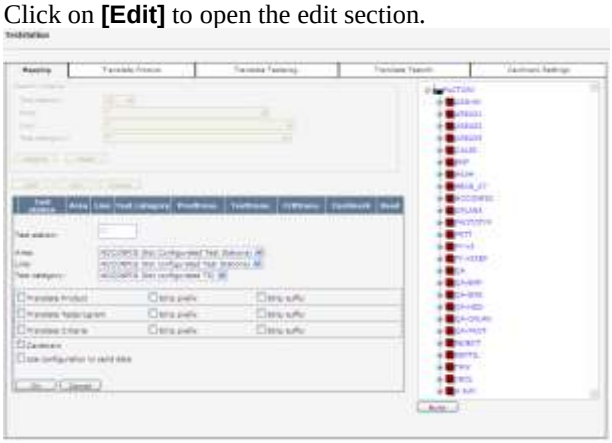


2. Type the number of the **Test Station**.
3. Select **Area**, **Line** and **Test Category** in their respective combo-boxes or select the mapping in the modelling tree-view to the right.
4. Check the appropriate check-boxes if mappings for **Products**, **Test Program**, **Test Criteria** and **Cardmarks** shall be used.
5. If the configuration shall be used directly make sure the check-box **Use configuration to send data** is checked.
6. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Test Station Mapping

To change a test station mapping:

1. Click on **[Search]** to fetch all test station mappings that match the search criteria.
2. Select the mapping you want to change in the list.
3. Click on **[Edit]** to open the edit section.



4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Test Station Mapping

To delete a test station mapping:

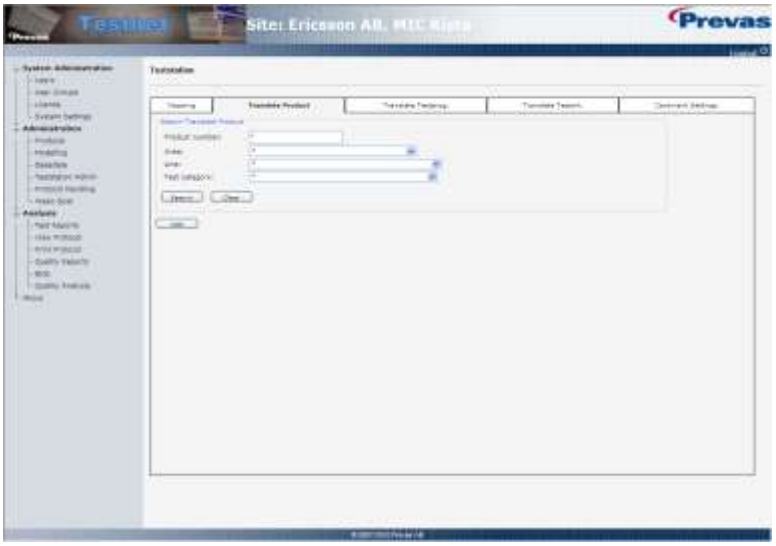
1. Click on **[Search]** to fetch all test station mappings that match the search criteria.
2. Select the mapping you want to delete in the list.
3. Click on **[Delete]** to delete the test station mapping from database.

Translate Product

If the Translate product checkbox is marked in Mapping tab information in this tab is used for translation purpose. The information in Translate product overrides or complements the earlier made mapping.

This is how to activate the **Translate Product** tab:

1. Click on **Test Station Admin** in the main menu.
2. Switch to the **Translate Product** tab.

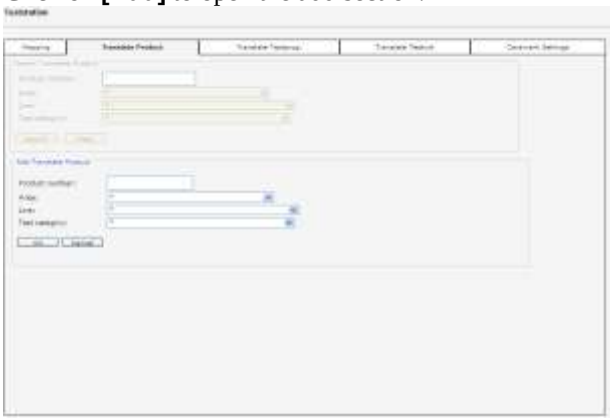


It’s possible to specify which area, line and test category a certain product number will be mapped into. These settings have no direct connection to a specific test station, all mappings made in the mapping tab that have translate product checked will be matched with the translate product information.

Add a Product Translation

To add a new product translation:

1. Click on **[Add]** to open the add section.



2. Enter the **Product Number**.
3. Select **Area**, **Line** and **Test Category** in their respective combo-boxes.
4. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Product Translation

To change a product translation:

1. Click on **[Search]** to fetch all product translations that match the search criteria.
2. Select the translation you want to change in the list.
3. Click on **[Edit]** to open the edit section.
4. Change the fields you want to change.

5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Product Translation

To delete a product translation:

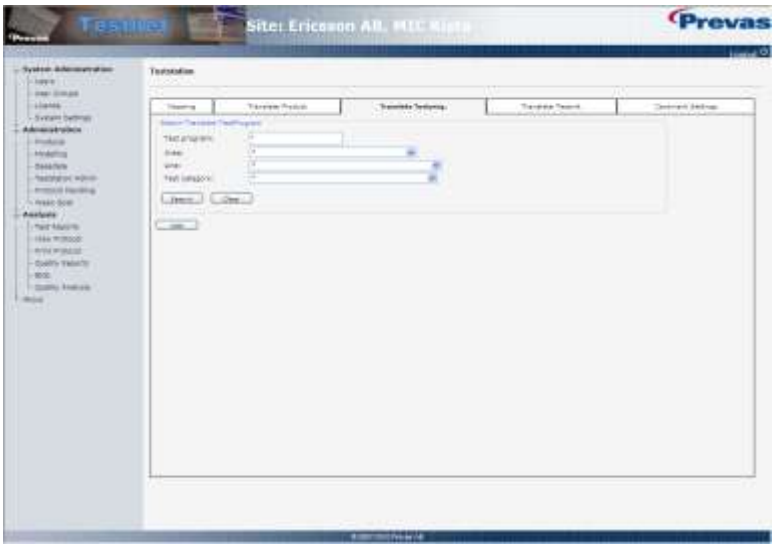
1. Click on **[Search]** to fetch all product translations that match the search criteria.
2. Select the translation you want to delete in the list.
3. Click on **[Delete]** to delete product translation from database.

Translate Test Program

If the Translate test program checkbox is marked in Mapping tab information in this tab is used for translation purpose. The information in Translate test program override or complement the earlier made mappings made in previous tabs, mapping and translate product.

This is how to activate the **Translate Test Program** tab:

1. Click on **Test Station Admin** in the main menu.
2. Switch to the **Translate Test Program** tab.

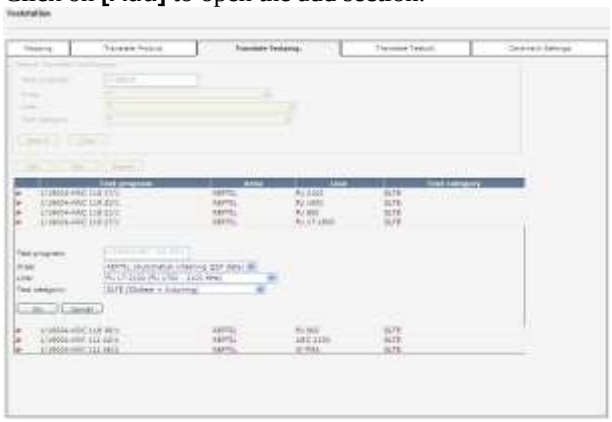


It’s possible to specify which area, line and test category a certain test program will be mapped into. These settings have no direct connection to a specific test station, all mappings made in the mapping tab that have translate test program checked will be matched with the translate test program information.

Add a Test Program Translation

To add a new test program translation:

1. Click on **[Add]** to open the add section.



2. Enter the **Test Program**.
3. Select **Area**, **Line** and **Test Category** in their respective combo-boxes.
4. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Test Program Translation

To change a test program translation:

1. Click on **[Search]** to fetch all test program translations that match the search criteria.
2. Select the translation you want to change in the list.
3. Click on **[Edit]** to open the edit section.

4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Test Program Translation

To delete a test program translation:

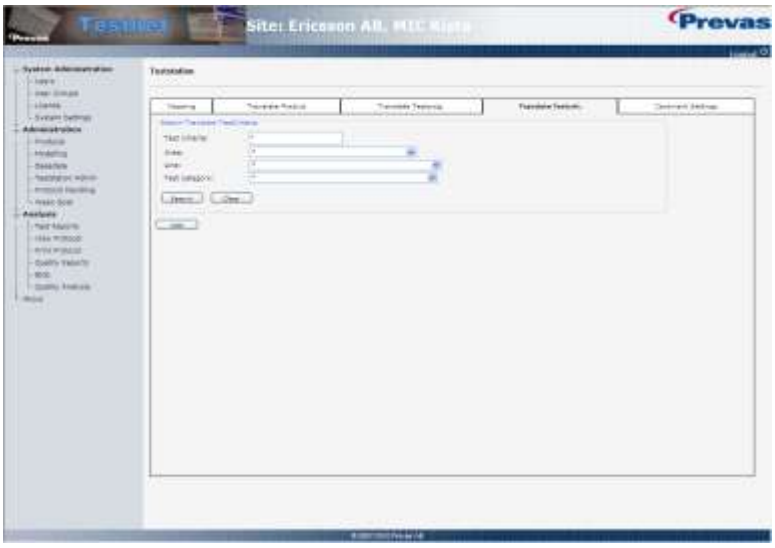
1. Click on **[Search]** to fetch all test program translations that match the search criteria.
2. Select the translation you want to delete in the list.
3. Click on **[Delete]** to delete test program translation from database.

Translate Test Criteria

If the Translate test criteria checkbox is marked in mapping tab information in this tab is used for translation purpose. The information in Translate test criteria override or complement the earlier made mappings made in previous tabs, mapping, translate product and translate test program.

This is how to activate the **Translate Test Criteria** tab:

1. Click on **Test Station Admin** in the main menu.
2. Switch to the **Translate Test Criteria** tab.

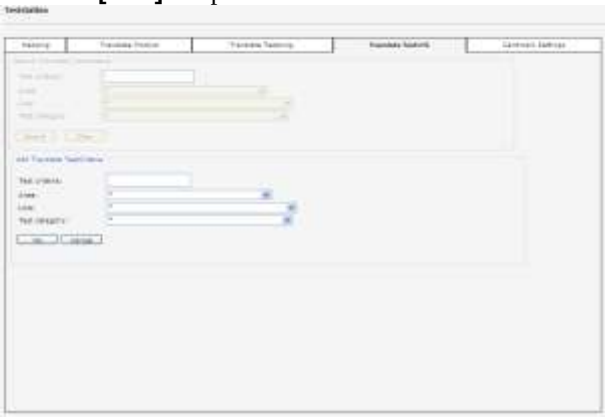


It's possible to specify which area, line and test category a certain test criteria will be mapped into. These settings have no direct connection to a specific test station, all mappings made in the mapping tab that have translate test criteria checked will be matched with the translate test criteria information.

Add a Test Criteria Translation

To add a new test criteria translation:

1. Click on **[Add]** to open the add section.

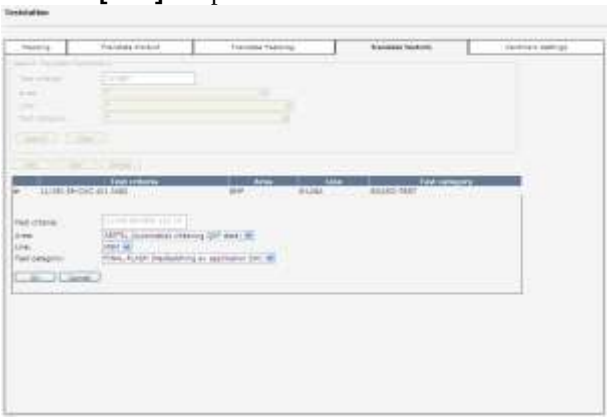


2. Enter the **Test Criteria**.
3. Select **Area**, **Line** and **Test Category** in their respective combo-boxes.
4. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Test Criteria Translation

To change a test criteria translation:

1. Click on **[Search]** to fetch all test criteria translations that match the search criteria.
2. Select the translation you want to change in the list.
3. Click on **[Edit]** to open the edit section.



4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Test Criteria Translation

To delete a test criteria translation:

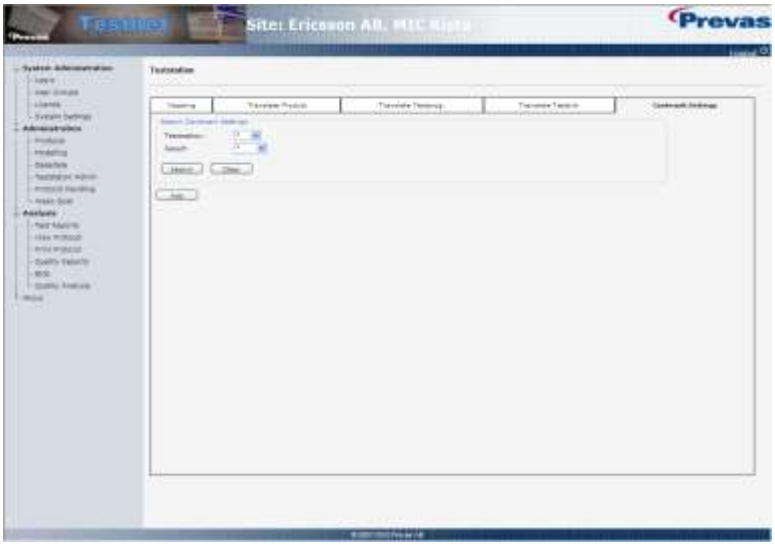
1. Click on **[Search]** to fetch all test criteria translations that match the search criteria.
2. Select the translation you want to delete in the list.
3. Click on **[Delete]** to delete test criteria translation from database.

Cardmark Settings

In this tab it's possible to filter which cardmarks to send and which to block. Cardmark configuration is possible to set for all test stations and for the result (PASS/FAIL). This setting is only active when the Cardmark setting is checked in the Mapping tab otherwise.

This is how to activate the **Cardmark Settings** tab:

1. Click on **Test Station Admin** in the main menu.
2. Switch to the **Cardmark Settings** tab.



Add a Cardmark Setting

To add a new cardmark setting:

1. Click on **[Add]** to open the add section.

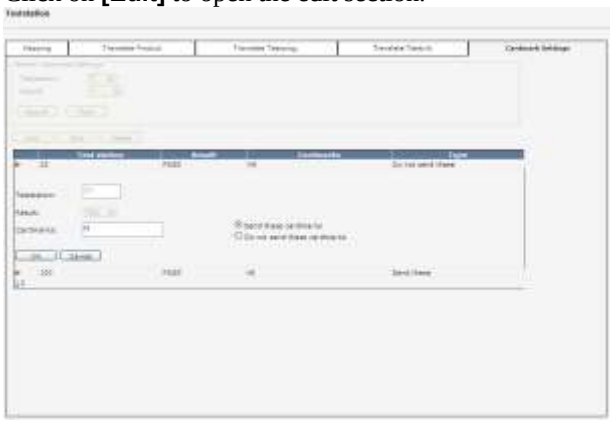
2. Enter the **Teststation**.
3. Select **Result** in the combo-box.
4. Specify the cardmark(s) that will be used as filter.
5. Select if the protocols with the cardmarks will be sent or not by clicking the appropriate radio button.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the add section without saving.

Change a Cardmark Setting

To change a cardmark setting:

1. Click on **[Search]** to fetch all cardmark settings that match the search criteria.
2. Select the setting you want to change in the list.

3. Click on **[Edit]** to open the edit section.



4. Change the fields you want to change.
5. Click on **[OK]** to save the changes. Click on **[Cancel]** to close the edit section without saving.

Delete a Cardmark Setting

To delete a cardmark setting:

1. Click on **[Search]** to fetch all cardmark settings that match the search criteria.
2. Select the setting you want to delete in the list.
3. Click on **[Delete]** to delete cardmark setting from database.

Protocol Handling

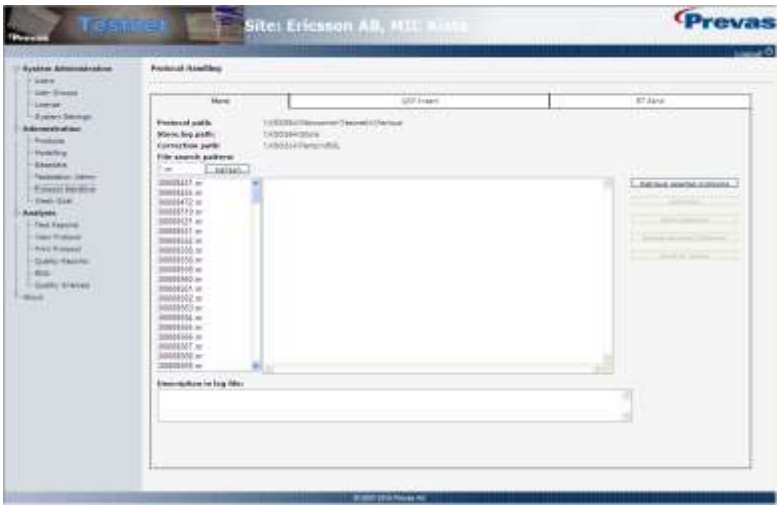
Description

Protocol correction contains tools for handling protocols. With the tools you can correct test protocols that have been rejected before they are stored in test database or the information is sent to quality database or sent to Bartrack system.

How to Start Protocol Handling Tool

The Protocol Handling tool is started by clicking this menu option:

Then the Protocol Handling page is opened.



This page makes it possible to:

- Handle protocols rejected by Store application
- Handle protocols rejected by QSP Insert application
- Handle protocols rejected by BT Send application

Store tab

This tab handles protocols rejected by Store application. That is protocols that are not stored in Testnet database.

This tab makes it possible to:

- Retrieve rejected protocols
- Add time
- Inspect protocols
- Show previous tests
- Send protocols to the queue
- Delete files

Retrieve Rejected Protocols

This function will rename the log-file **`store.log`** to **`SAVTOT`**, and place it in the directory specified in the configuration file for web site. It will then relocate all **`*.rrr`** files from Pamela protocol queues to the same directory. When the process is finished a message will be displayed stating how many protocols have been retrieved.

How to Retrieve Rejected Protocols

1. The directory where the protocols are moved to is determined by the parameter **Correction path**.
2. Click on Retrieve rejected protocols.

Add Time

This function is an aid for correcting protocols with **`Test time too old`**, or **`Test date too old`** errors.

How to Add Time to Protocols

To correct the protocols:

1. Select protocols with this kind of error.
2. Click on Add time.

All selected protocols will be handled. If there are no protocols selected then all protocols (**`*.rrr`**-files) in the directory will be handled.

The protocols are handled like this:

- The first check that is made is to see when the ID-number in the protocol was last tested.
- The date and time for the latest store is retrieved.
- The new start time will be the latest start time increased by one second.
- The date and the stop time will be adjusted so that the test duration will be unchanged for the current test protocol.

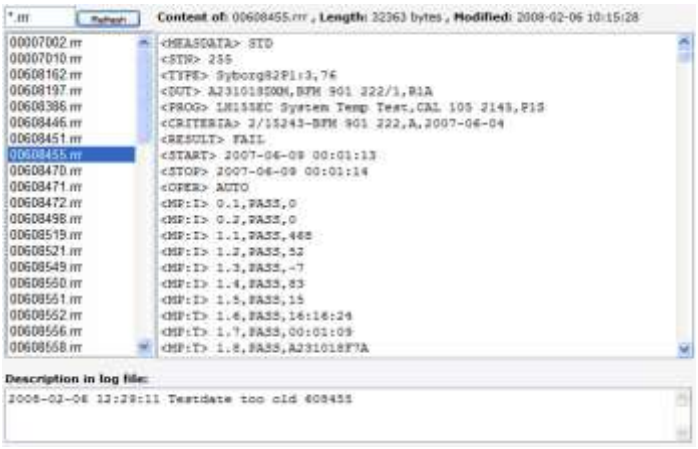
- If the same ID-number occurs again during the same run of the Add Time function the start and stop time will be increased by one second for each new occurrence of this ID-number.

Inspect Protocols

To inspect a protocol you select the protocol in the file list. The protocol will then be displayed in the textbox next to the list of protocols. Below the textbox, the file length and the time of the last modification to the file are shown.

If a protocol has a log-entry in the log-file **`SAVTOT`**, you can see the log-file description in the **Description in log-file** textbox. See below:

N.B. **`SAVTOT`** must exist in the same directory as the rejected protocol.



If the error description from the log-file contains an indication of an offending line then this line will automatically be selected in the textbox. If the error is **`Testdate is too old`** or **`Testtime is too old`** then this will be carried out without a line indication in the log-file.

Show Previous

If the file you are inspecting is a protocol and you would like to know if the tested protocol has been tested before, then click on Show previous. This function enables you to inspect data for the last ten tests that have been run on the ID-number in question.

Send Protocols to Queue

To send the extracted/corrected protocols to the queue:

1. Select the protocols you want to resend to queue.
2. Click on Send to queue.

All selected protocols will be sent to the queue, if you have not selected any protocols then all protocols (**`*.rrr`** and **`*.rec`**-files) in the directory will be sent.

N.B. If a protocol has the file extension **`.REC`** then the database is checked to see if the protocol already exists – if so then the protocol will not be sent to the queue.

Delete Files

Select all the files you want to delete and click Delete selected protocols.

The selected files will be deleted.

QSP Insert tab

This tab handles protocols rejected by QSP Insert application. That is protocol data that are not sent to Quality database.

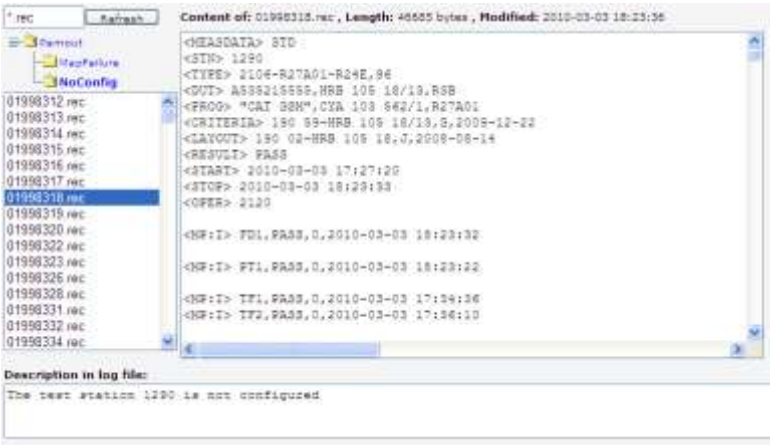
This tab makes it possible to:

- Inspect protocols
- Send protocols to the queue
- Delete files

Inspect Protocols

To inspect a protocol you select first the folder and then the protocol in the file list. The protocol will then be displayed in the textbox next to the list of protocols. Below the textbox, the file length and the time of the last modification to the file are shown.

If a protocol has a log-entry in the corresponding log-file, you can see the log-file description in the **Description in log-file** textbox. See below:


Content of: 01998318.rec , Length: 46665 bytes , Modified: 2010-03-03 18:23:36
Description in log file:
The test station 1290 is not configured

Send Protocols to Queue

To send the extracted/corrected protocols to the queue:

1. Select the protocols you want to resend to queue.
2. Click on Send to queue.

All selected protocols will be sent to the queue, if you have not selected any protocols then all protocols (**`*.rrr`** and **`*.rec`**-files) in the directory will be sent.

Delete Files

Select all the files you want to delete and click Delete selected protocols.

The selected files will be deleted.

BT Send tab

This tab handles protocols rejected by BT Send application. That is protocols that are not sent to Bartrack system.

This tab makes it possible to:

- Retrieve rejected protocols
- Inspect protocols
- Send protocols to the queue
- Delete files

Retrieve Rejected Protocols

This function will rename the log-file **`btsend.log`** to **`SAVTOT`**, and place it in the directory specified in the configuration file for web site. It will then relocate all **`*.rrr`** files from Pamela protocol queues to the same directory. When the process is finished a message will be displayed stating how many protocols have been retrieved.

How to Retrieve Rejected Protocols

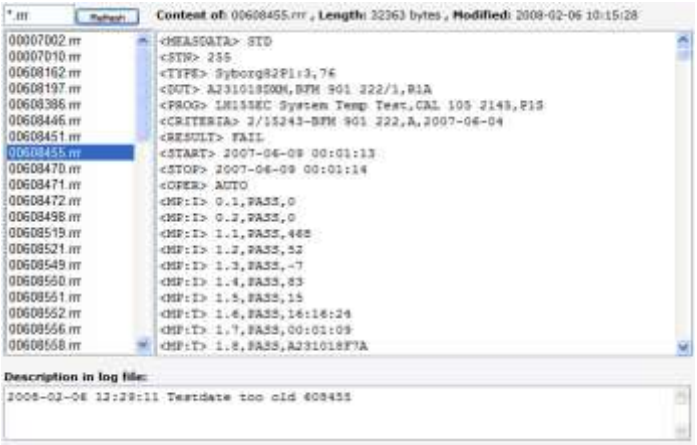
1. The directory where the protocols are moved to is determined by the parameter **Correction path**.
2. Click on Retrieve rejected protocols.

Inspect Protocols

To inspect a protocol you select the protocol in the file list. The protocol will then be displayed in the textbox next to the list of protocols. Below the textbox, the file length and the time of the last modification to the file are shown.

If a protocol has a log-entry in the log-file **`SAVTOT`**, you can see the log-file description in the **Description in log-file** textbox. See below:

N.B. **`SAVTOT`** must exist in the same directory as the rejected protocol.



Send Protocols to Queue

To send the extracted/corrected protocols to the queue:

1. Select the protocols you want to resend to queue.
2. Click on Send to queue.

All selected protocols will be sent to the queue, if you have not selected any protocols then all protocols (**`*.rrr`** and **`*.rec`**-files) in the directory will be sent.

Delete Files

Select all the files you want to delete and click Delete selected protocols.

The selected files will be deleted.

Week Goal

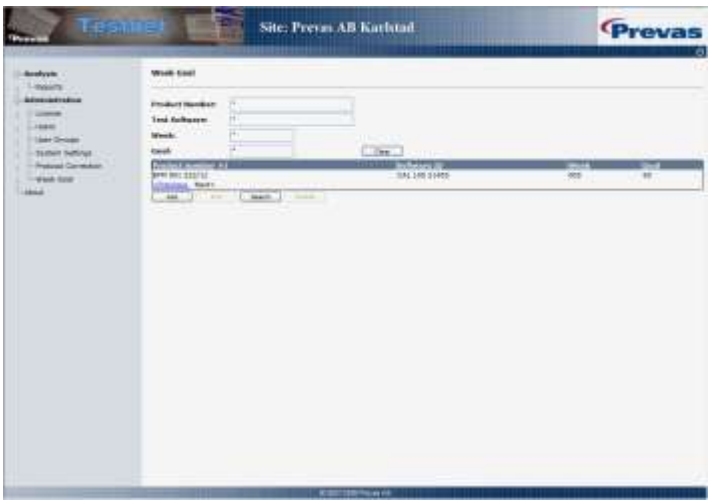
Description

The Week Goal function enables you to add, change, fetch and delete the weekly yield goals (**WEEKGOAL** table).

How to Start Week Goal Tool

The Week Goal tool is started by clicking this menu option:

Then the Week Goal page is opened.



Enter search criteria in the **Product Number**, **Test Software**, **Week** and **Goal** fields. An * (asterisk) will search for all occurrences. The result is displayed in the table. Click on **[Search]** to fetch all matching week goals.

By clicking the column header you can sort the table by that column.

By clicking on **[Add]** you can add more week goals, by clicking on **[Edit]** you can update the selected week goal, and by clicking **[Delete]** you can delete the selected week goal.

To Add an Entry

This is how you add a week goal entry:

1. Enter **Product Number**, **Test Software**, **Week**, and **Goal**.
2. Click on Add.

To Update an Entry

This is how you update a week goal entry:

1. Select the row you would like to update.
2. Change the **Goal** field.
3. Click on Update.

To Delete an Entry

This is how you delete a week goal entry:

1. Select the row you would like to delete.
2. Click on Delete.

Users

Description

All Testnet users must have their access rights granted by a System Administrator. With this tool System Administrators can update and add user profiles as well as administer passwords

In Testnet there are three different default types of users, these are:

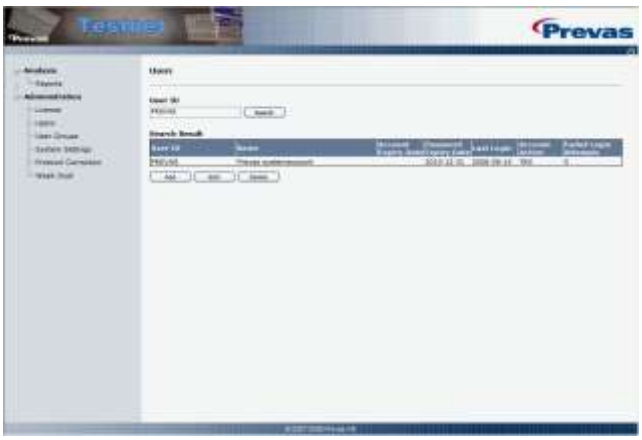
- Analysts
- Administrators
- System Administrators

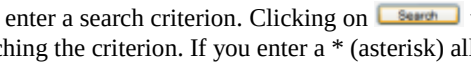
This function contains a list of all users allowed to log on to Testnet. It is possible to set passwords for existing users. Users are assigned to at least one user group to control what level of access they have.

How to Start Users Tool

The Users tool is started by clicking this menu option:

Then the Users page is opened.



In the **User ID** field you can enter a search criterion. Clicking on  will fetch all users in the database matching the criterion. If you enter a * (asterisk) all users will be fetched.

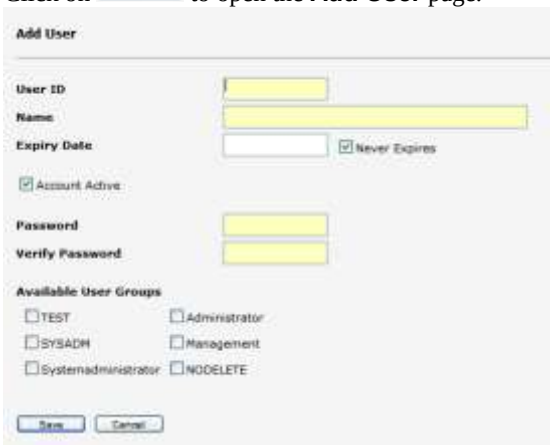
The **Search Result** table contains the matching users.

By clicking on **[Add]** you can add more users, by clicking on **[Edit]** you can edit the selected user, and by clicking **[Delete]** you can delete the selected user.

Adding a User

This is how you add a user:

1. Click on Add to open the **Add User** page.



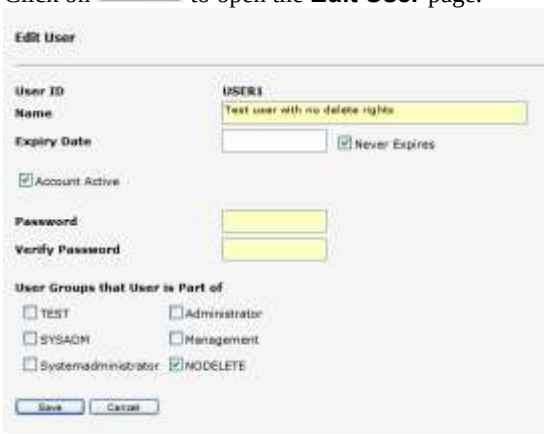
2. Enter the **User ID** and a **Name**.
3. By default, **Never expires** is selected. If you de-select this option, the **Expiry date** for the account can be set using a date picker.
4. Enter the password twice, once in **Password**, and once in **Verify password**. If the two entries do not match, you will get an error message.
5. In the **Available User Groups**, select which group(s) the user shall belong to. Click on the appropriate checkbox to add the selected groups.
   N.B. The user must have at least one user group assigned.
6. Click on Save to add the user to Testnet. If the **User ID** already exists, you will get an error, and must enter a different user ID before it is possible to add the user.

The user will be added, and the list is updated to reflect the new user.

Editing a User

This is how you change a user:

1. Select an existing user in the list.
3. Click on Edit to open the **Edit User** page.



4. Change the fields.
5. Click on Save to save the new values in Testnet.

The user will be changed, and the list is updated to reflect the changes.

Deleting a User

This is how you delete a user:

1. Select an existing user in the list.
2. Click on Delete to delete the user. A confirmation dialog box is displayed.

Click on **[OK]** to delete the user from Testnet.

The user will be deleted, and the list is updated to reflect the changes.

User Groups

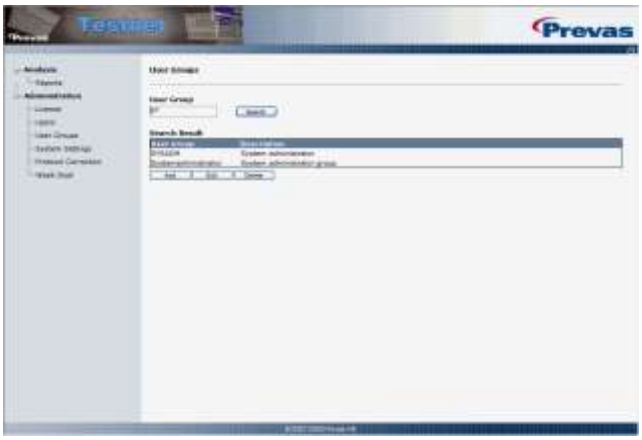
Description

This function contains a list of all user groups in Testnet. Each user group contains a list of access rights. The access rights included in a user group will control access right for users belonging to that user group.

How to Start User Groups Tool

The User Groups tool is started by clicking this menu option:

Then the User Groups page is opened.



In the **User Group** field you can enter a search criterion. Clicking on Search will fetch all user groups in the database matching the criterion. If you enter a * (asterisk) all user groups will be fetched.

The **Search Result** table contains the matching user groups.

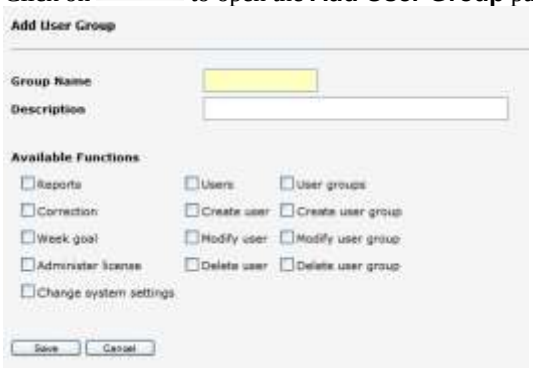
If you click on a user group, the assigned functions are shown in the list below the user group list.

By clicking on **[Add]** you can add more user groups, by clicking on **[Edit]** you can edit the selected user group, and by clicking **[Delete]** you can delete the selected user group.

Adding a User Group

This is how you add a user group:

1. Click on Add to open the **Add User Group** page.



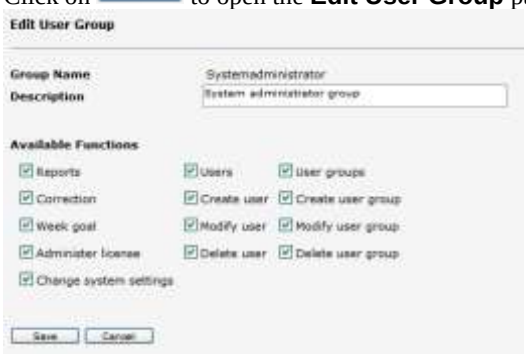
2. Enter the **Group Name** and a **Description**.
3. In the **Available Functions**, select which function(s) the user group shall have access to. Click on the appropriate checkboxes to add the selected functions.
   N.B. The user group must have at least one function assigned.
4. Click on Save to add the user group to Testnet. If the **Group Name** already exists, you will get an error, and must enter a different name before it is possible to add the user group.

The user group will be added, and the list is updated to reflect the new user group.

Editing a User Group

This is how you change a user group:

1. Select an existing user group in the list.
2. Click on Edit to open the **Edit User Group** page.



3. Change the field and the assigned functions.
4. Click on Save to save the new values in Testnet.

The user group will be changed, and the list is updated to reflect the changes.

Deleting a User Group

This is how you delete a user group:

1. Select an existing user group in the list.
2. Click on Delete to delete the user group. A confirmation dialog box is displayed.

   Click on **[OK]** to delete the user group from Testnet.

The user group will be deleted, and the list is updated to reflect the changes.

N.B. It is not possible to delete a user group that has been assigned to a user.

License

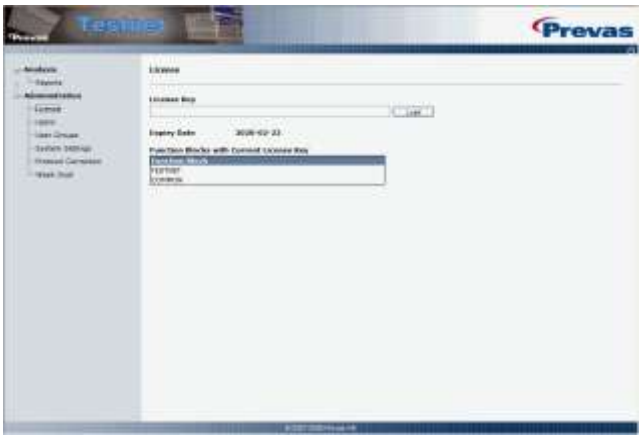
Description

This function contains a list of available functions in Testnet. To lock or unlock functions, a license key is required. License is provided by Prevas AB.

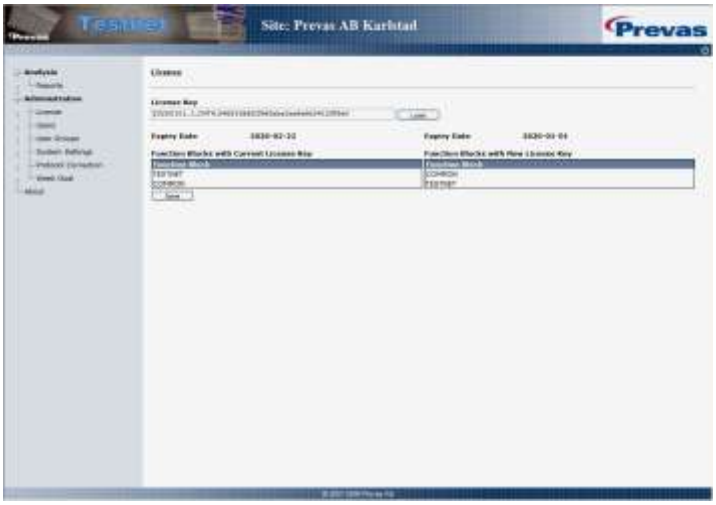
How to Start License Tool

The license tool is started by clicking this menu option:

Then the License page is opened.



When a new license key has arrived, paste or enter it into the **License Key** field, and then click on Load. A new list on the right, **Function Blocks with New License Key**, displays what functions are included in the new license key.



The **Expiry date** is displayed for both current and new license.

In the list you can see the **Function Blocks with Current License Key** and **Function Blocks with New License Key**.

Before the license expires, a warning message is displayed to each user logging on.

If you want to accept the new license, click on Save.

System Settings

Description

This function allows the system administrator to set a number of specific settings for Testnet.

How to Start System Settings Tool

The System Settings tool is started by clicking this menu option:

Then the System Settings page is opened.

This page contains two tabs one for system settings and one for Test Station Admin Settings.

System Settings tab

The tab contains a list of all visible system settings.

To change a setting, select the value in the right-hand column, and enter the new value. In the adjacent column is a **Description** of the setting.

After the settings have been changed, you must click on to save the information in database.

Key

This is a list of all available visible keys in the system settings in Testnet. Which keys are visible depends on the installation. Note! Only the System Administrator is authorized to change these values. Invalid changes may cause system failure!

Key	Typical Value	Module	Description
CHECK_OLD_ PASSWORD	6	Administration	Number of generations of passwords that are not allowed to be reused. 0 = Not used 1 – n = Number of old passwords that should be checked.
DEBUGTRACE	0	Administration	Debug tracing to trace log. 0 = No debug tracing 1 = Debug tracing to trace log
INVALIDPW SYMBOLS	"@'*/\#`^ {[]}?!	Administration	List of symbols that are not allowed for usage in user passwords.
LICENSE WARNINGLIMIT	30	Administration	Number of days before license expiration when warning message is displayed.
MAX_ PASSWORD	10	Administration	Max length allowed on password.
MIN_ PASSWORD	6	Administration	Minimum length required on password.
PASSWORD_ EXPIRE	30	Administration	Number of days between required password changes.
PASSWORD_ DIFFCASE	1	Administration	The system shall require that passwords include letters in both upper case and lower case. 0 = No check 1 = Check that both upper case and lower case are used
PASSWORD_ NUM	1	Administration	The system shall require that passwords include at least one character that is not a letter. 0 = No check 1 = Check that at least one character is not a letter
PDOXCOMMDIR	\\WH_Server\ Pdoxcomm	Reptile, Reptile.NET	Path to Pdoxcomm file share
TESTNETIN	\\WH_Server\ Pdoxcomm\ TestnetIN	Protocol Handling	Path to where to find Testnet protocols rejected by Store
QSPTRANSFER PLUSIN	\\WH_Server\ Pdoxcomm\ QSPTransferPlusIN	Protocol Handling	Path to QSPTranferPlusIN directory
BARTRACKIN	\\WH_Server\ Pdoxcomm\ BartrackIN	Protocol Handling	Path to BartrackIN directory
QSP_ODBC	QSP_PROD	Reptile,	Name of ODBC source

		Reptile.NET	for QSP database
QSP_ SERVERNAME	QSP_DB_ SERVER	Reptile, Reptile.NET	Name of database server for QSP
QSP_ CONNECTION STRING	Data Source= (DESCRIPTION= (ADDRESS= (PROTOCOL=TCP) (HOST=QSPDBServer) (PORT=1521)) (CONNECT_DATA = (SERVICE_NAME= QSPDB) (SERVER=DEDICATED)))	Reptile.NET	Connection string to use for connecting to QSP database. If this parameter exists it will be used instead of QSP_ODBC.
TESTNET_ CORRECTION PATH	\\Web_Server\Temp	Protocol Handling	Path to where to store protocols during corrections (on local web server).
TESTNET_ LOGFILEPATH	\\WH_Server\Store	Protocol Handling	Path to where to find corresponding store.log file.
BARTRACK_ LOGFILEPATH	\\WH_Server\ BTSend	Protocol Handling	Path to where to find corresponding send.log file.
TQREPORT_ SINGLEAREA	REPTILE	TQReport	If you want the TQReport to display data for one single area. This parameter is optional.
TQREPORT_ EXCELREPORT	\\Share_Server\ Templates\ T05 R1.XLS	TQReport	Adjust the path to the share where your **T05 R1.xls** file is located. This must be a place where each user that runs Testnet_Web has to have access. It does not have to be within the website.
MEASDATA_ WORD TEMPLATE PATH	\\Share_Server\ Templates	Measdata	Adjust the path to the share where your Word templates for Measdata **CAPREPWORD-TEMPLATE.DOC**, **CONTWORD-TEMPLATE.DOC** and **GAUGEWORD-TEMPLATE.DOC** files are located. This must be a place where each user that runs Testnet_Web has to have access. It does not have to be within the website.
FETCH_URL	http://Web_Server/ TestnetFetch_WS/ TestnetFetch_WS.asmx	View Protocol, Reptile.NET	URL to Fetch_WS used to recreate protocols from database.
PROTOCOL PRINT_ INPATH	\\WH_Server\ ProtocolPrint\In	Protocol Print	Input directory for ProtocolPrint service. Used only if you have

			ProtocolPrint service installed on Workhorse.
PROTOCOL PRINT_ INSEPARATOR	<TAB> character	Protocol Print	Separator character for input files for ProtocolPrint service. Used only if you have ProtocolPrint service installed on Workhorse.
PROTOCOL PRINT_ OUTPATH	\\WH_Server\ ProtocolPrint\Out	Protocol Print	Output directory for WebProtocolPrint service. Used only if you have ProtocolPrint service installed on Workhorse.
WEBPROTOCOL PRINT_ INPATH	\\WH_Server\ WebProtocolPrint\In	WebProtocolPrint	Input directory for WebProtocolPrint service. Used only if you have WebProtocolPrint service installed on Workhorse.
WEBPROTOCOL PRINT_ INSEPARATOR	<TAB> character	WebProtocolPrint	Separator character for input files for WebProtocolPrint service. Used only if you have WebProtocolPrint service installed on Workhorse.
WEBPROTOCOL PRINT_ OUTPATH	\\WH_Server\ ProtocolPrint\Out	WebProtocolPrint	Output directory for WebProtocolPrint service. Used only if you have WebProtocolPrint service installed on Workhorse.
WEBPROTOCOL PRINT_ PRINTER	PDFCreator	WebProtocolPrint	The actual PDF printer name. Used only if you have WebProtocolPrint service installed on Workhorse.

Test Station Admin Settings tab

This tab contains settings for old Test Station Admin application.

In this tab the general settings of the QSP Insert service behaviour are configured. The settings affect how the QSP Insert handles the protocols

Two of the checkboxes represent saving or discard the protocols with **MapFailure** or **NoConfig**. When the checkbox is checked the protocols will be saved. The other two checkboxes handles the log-files, MapFailure.log and TestStationList.log. When the checkbox is checked the log-files are enabled.

The currently settings are automatically loaded when the tab is displayed. The **[Refresh]** button is only of use to make that the correct settings present in picture. To activate any changes in the settings click **[Save]** button.

Glossary of Terms

Action

An action is the measure taken to correct a fault.

Action Code

An action code is a code for the measure taken to correct a fault.

Area

An area consists of a limited region or part of the physical surface in production. The area is defined in terms of the production of a certain type of product, or it may be related to a certain department.

Bartrack

Bartrack is a traceability system used for generating unique identification numbers for individuals in production.

Cardmark

Cardmark is identification for a particular batch.

Class

This is a measurement point interval. +/- 180% is divided into 45 classes.

Component

A component is a product without subordinate products.

Cre.week

The week that the identification number was created in Bartrack, for example, 01 or week 1 is the first week of the year.

DPMO

In Quality Reports, the total amount of faults points are expressed as Defects per Million Opportunities (DPMO)

Empl.no

Empl.no is the employee number of the person running the test.

End time

End time is the time when the test was finished.

Failed

‘Y’ = Test OK, passed

‘N’ = Test not OK, failed.

Fault

A fault is the cause of one or more fault symptoms.

Fault class

A fault class is used to indicate the seriousness of a fault. Ericsson uses fault classes A, B, C and D. Each fault class is expressed in fault points, where A is 100 points, B is 50 points, C is 10 points, and D is 1 point.

Fault code

The code that identifies one or more faults.

Fault identity

The date and time of the occurrence of the fault together with the last four characters in the operator’s user ID.

Fault outcome

The fault outcome is a percentage that indicates the proportional amount of the tested individuals that have been rejected.

Fault point

Fault points are linked to fault classes and rank the seriousness of a fault.

Id.no

Id.no is the identification number of an individual. This is the same thing as serial number.

Inspection identity

See fault identity.

Measuring point

The point used during inspections in order to measure the extent of a deviation from a set value or function.

Loc.

Loc. is the test category (report location).

Node

Node is the node/test station number where test was performed.

Passed

‘Y’ = Test OK, passed

‘N’ = Test not OK, failed.

PRIM

Product Information Management database. A central register of products.

Product

Each product is identified by its product number and R-state.

Product Number

The product number is a unique set of characters and digits identifying a certain product. Together with the R-state, it is possible to handle different revisions of the product.

Product place

The product place is a combination of a report location and a product. It does not necessarily have to be a physical place.

Product relation

Product relation is the relationship between superordinate and subordinate products.

Production line

A production line describes the flow in production, and often includes a production phase and the tests that are associated with it. The line is not specific to the product. Therefore several different products can pass along the same line.

QSP

QSP is a quality module used for following up quality in production.

Report group

A report group is a number of products that are linked together by a common characteristic.

Report location

The report location identifies the location in the production process where a given test is done. The report location consists of the link between the area, production line and test category.

R-state

The R-state, or revision state, together with the product number identifies a product. It is increased for each new revision of the product.

Start time

Start time is the time when the test was started.

Sw.id

Sw.id is Software identification – identification for a special test program.

Test

A test is an adjudication process that judges a products performance in relation to an agreed set of criteria or standards.

Total yield

The total yield is the collective amount of yields from a number of consecutive report locations.

Test comment

Comment from test station.

Test date

Test date is the date when the test was performed.

Test.cat

Test category.

Test.cnt

Number of tests performed.

Test.err.group

Test group where the fault was detected.

Test.err.point

Test point where the fault was detected.

Test.id

Identification for different software identifications (1 = normal).

Total time

Total test time in seconds.

Yield

The yield is always expressed as the ratio between tested and approved individuals. The yield could be a fraction, such as 0.79 or a percentage, such as 79%.

Glossary

Measdata Capability Report

This glossary is also found on page three and four in the MS Word Capability report.
The glossary sheet holds this information:

DPMO	Defects Per Million Opportunities. Expected DPMO: A calculated value of DPMO of each measurement. The expected value is a prediction of future fall-outs based on the normal distribution. Observed DPMO: A value of DPMO that is based upon actual faulty measurements. PPM Parts per million, for example defects per million (compare DPMO).
Hi limit	Hi limit corresponds to USL – Upper Specification Limit (according to doc 1524)
Low limit	Low limit corresponds to LSL – Lower Specification Limit (according to doc 1524)
Hi Cap / Lo Cap	The capability of the measurement is calculated both towards the High limit (USL) - corresponding to Hi Cap - and the Low limit (LSL)- corresponding to Lo Cap. The lowest value of Hi Cap and Lo Cap forms the actual CPK-value (see Capability).
LSL, USL	The low and high specification limits of a measurement. Same as Hi and Low limit.
Attribute data	Data that are not measured by (infinite) numerical values but are given attributes, for example True/False or 1/0, are classified as Attribute data. In our case it is referred to as Boolean data.
Yield	The percentage of the tested units that passed the test.
Pareto chart	A visual method for identifying significant problems, by arranging the data in a bar graph by their relative sizes – from largest down. Its purpose is to identify potential causes for further studies.
Instability	Values that are considered being too far from the population are categorized as instabilities (outliers). Instability is determined by two formulas: 1) values outside 180% of the range of the limits *and* 2) values beyond 4 std from the mean value.
Capability	An index that serves as a prediction for individual measurements (or as a whole) how capable a process is to perform within known limits. Capability is measured by CPK (a ratio between "a closeness to a limit" and the variation). CPK=min[(USL-mean)/3std; (mean-LSL)/3std] Important values of the index:

< 1 The process is not capable, regardless of mean value.
1 The process balances on the edge of good/bad.
1,33-1,5 There is a margin for shifts in the process such as different batches, noise in equipment etc.
2 World class performance.

The index is equivalent with the Z value at a ratio of 3. A CPK-value of 1,33 equals 4 as Z value. (See Sigma Value)

Norm test

A Chi-square test is used to examine the population whether a normal distribution is at hand. Values below 0,05 indicate no normality, and a transformation may take place.

Continuous data

Data that has infinite resolution (only restricted by the measuring device) and no theoretic boundaries for negative and positive values. Typical measurements are voltage, current, power etc.

Approximations to continuous data are made for those with boundaries at 0 (e.g. current may not drop below zero), as they show characteristics as being continuous and can be calculated as such.

Outliers

See Instability.

Outlier Limit High
Outlier Limit Low

Outlier Limit high and Limit Low are the calculated values at which a value is considered an outlier if being outside.

Transformation

Transformation is made to make capability calculations justified since it requires normality. When measurements are deviating from normality the transformation may be used.

Two criteria are involved; the CPK-value is below 1,0 and Norm test-value shows non-normal behaviour (see Norm test). The method used here is Area transformation.

Sigma value

For a business process, the sigma value indicates how well that process is performing, for example Z = 1,0 is bad, Z = 4,0 is mediocre performance, Z = 6,0 is considered "world class""). See also Capability.

Standard deviation

A statistical index of variability or variation, normally designated s or σ (sigma).

$$s = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}}$$

The standard deviation is a value, based upon all measurements, that tells us how far apart, or narrow, our measurements are as a group. When the data is normal distributed, or approximately normal, it is known that 99,73% of the measurements fall between ±3 standard deviations from the mean value.

Conf Interval

Confidence Interval (CI) is a range where the true value most likely is within. The certainty of such a statement is known as the *confidence level*, and is normally at 95%.
There are two parameters that affect the CI: the sample size and the confidence level.

TQ Report Administration

Explanations

These explanations are also found in the Excel TQ Report. The Explanations sheet holds this information:

Yellow	Yield Information
Row 1	Name of test place and name of product. These are from t05_config.xls where they are mapped on product number of test and product.
Row 3	Start date in search-End date in search-Last date in interval for yield presentation. Note! Data must always be searched until correct time in order for the report to display correct number of approved units and units still in repair loop.
Row 4	Number of approved first time tests.
Row 5	Number of failed first time tests.
Row 6	Number of first time tests.
Row 7	Yield calculated on number of approved first time tests divided with the total number of first time tests.
Row 8	Confidence interval yield calculated on 95% confidence.
Symptom	The measurement point's description sent with test record from test place. If data is missing "No symptom" is displayed.
Code	The measurement point's code sent with test record from test place. If data is missing "--" is displayed.
A	Number of failed first time tests.
%	Number of failed first time tests in regards to the number of first time tests.
AI.	Number of faulty individuals regardless of first time tests or not.

Green	Test Place Information
Row 5	Number of failed first time tests on this test place (row 9).
Row 6	Number of first time test for this test place (row 9).
Row 7	The yield for this test place. Calculated on number of approved first time tests for this test place divided by total number of first time tests for this test place.
Row 9	Test place number.

Red	Red - Repair Loop Information

Here successful actions on the fault from test generation 1. If other generation was chosen the actions connected to that is displayed.

Successful action is the inputs that get approved in next test or approved in later tests without the symptom reoccuring in later generations.

Entered faults	Number of failed individuals in first time tests that have successful action.
Retest	Number of individuals that have no entered action and the unit has been approved.
No fault found	Number of individuals where fault code for "No fault found" have been entered in troubleshoot.
Functional fault	Number of individuals where fault code for "Functional fault" have been entered in troubleshoot.
Sma	Number of individuals where fault code that belongs to "sma" fault have been entered in troubleshoot. The fault codes that belong to sma faults are defined in configuration file. In the configuration file positions can be given for certain products that not will be counted as sma faults.
Other faults	Number of individuals where other fault codes have been entered in troubleshoot.
In repair loop	Number of the failed individuals that still are in repair loop. That is all individuals not passed in test.
Scrap	Number of scrapped units. That is the ones with action code KA.
OK id	Number of failed individuals passed in test.

The pie chart displays the distribution of faults for the failed units.

Blue	Measurement Value Information
Low Limit	The lower limit from test record sent to test place.
High Limit	The higher limit from test record sent to test place.
Unit	The unit of failed measurement point.
Value	The failed measurement value of first time test. One value for each individual.
Red	Failed unit not reported by troubleshoot.
Blue	Failed unit reported by troubleshoot
Green	Approved unit not reported by troubleshoot
Green	Approved unit reported by troubleshoot

This information is displayed in comment for measurement value is:

Configuration

The configuration of TQ Report is made in the file t05_config.xls. Where this file is found is determined at installation time. The location of this file is the same directory as t05_R1.xls and is found in the parameter TQREPORT_EXCELREPORT in SYS_SETTINGS table.

Product Names

You can translate the product number to a product name that is displayed in the TQ report. It is defined in a section of Sheet1 of t05_config.xls. It can be useful if you updated this list when you start to produce a new product.

product_name	
BOE 602 15/2	IXU
BOE 602 21/1	DXU23
BOE 602 18/1	BOE PSTU
INX 106 605/1	CR7 900
INX 106 606/1	TBU CR7
INX 106 625/1	CR7 900
INX 106 626/1	TBU CR7
INX 106 639/1	CR7 1800

The first column contains product number and the second the name to display instead.

SMA

For example to set which fault codes that counts as sma, there is a section in Sheet1 of t05_config.xls.

sma
A01,A02,A03,A04,A05,A06,A12,A15,A16,A18,A20,B01,B02,B03,C01,C02,C03,C05,C06,C07,C15,C17

Just enter your matching fault codes for sma separated by ",".

No SMA

You can also define positions that will not count as sma faults even if the fault is sma fault code. The first column is the product number and the second are the positions that will not count as sma faults.

ej sma	
1/KRC 118 18	4,V1400,V1450
KRC 118 16/1	8,U1304,U1310,U1302,U1300
KRC 118 16/2	8,U1304,U1310,U1302,U1300
KRC 118 18/1	3,8,208,U1400,U1450,11
KRC 118 19/1	U1304,U1310,U1300,U1302,U1307,U1308,8
KRC 118 22/1	U1304,U1310,U1300,U1302,U1307,U1308,8
KRC 118 29/2	3,8,208,U1400,U1450,11

Codes

Then at the end there are some settings.

codes	
NO_FAULT_FOUND	H04;R01
FUNCTIONAL_FAULT	F03
SCRAP	KA
TO_TROUBLESHOOT	TF

For No fault found and functional fault you can enter several fault codes separated by ";". For Scrap and to troubleshoot you can enter several action codes separated by ";".